Revenue Estimating Manual:
New Mexico General Fund Revenues

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I. INTRODUCTION

This manual describes the procedures and methods used to prepare revenue estimates for New Mexico state government. The particular revenue sources discussed here are primarily those which accrue to the General Fund and for which estimates are prepared by the Taxation and Revenue Department and the Department of Finance and Administration. This manual is primarily designed to serve as a reference for executive and legislative staffs involved in forecasting revenues, although legislators and other policymakers may find it helpful in understanding the estimating process.

The manual is organized into several parts. The first part, composed of the first three sections, discusses background considerations, including the institutional arrangements and the general economic forecast. The second and third parts of the volume (Sections IV and V) describe revenue estimating procedures on a source-by-source basis. Section VI describes the methods and estimates for a long range determination of revenues. The last part, Section VII briefly explores other considerations to be taken into account when developing revenue estimates, such as multiplier and allocation effects on revenues and the effect of tax changes on economic growth.

There is no magic formula for preparing revenue estimates. Nor are the revenue sources, themselves invariant. Therefore, the manual is expected to evolve both in form and content. Comments from readers and users are most welcome and should be addressed to:

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II. THE REVENUE ESTIMATING PROCESS

The Relationship of the Revenue Estimating Process to the Budget Process

The revenue estimating process is simply one component of the budget process. It establishes the amount of resources available under existing revenue laws for allocation to government programs or for return to the public through tax reductions or rebates. Revenue estimating can be extended to include projecting the additional resources that would become available through changes in tax laws or fees. However, the scope of the revenue estimating process is relatively limited because the process itself does not determine the amount or distribution of resources that should be allocated to public purposes.

Since revenue estimating is a component of budgeting, its timetable must dovetail with the budget timetable. Preliminary ranges of revenues are prepared in October, so that policymakers have some guidelines for preparing agency budgets. Final estimates are prepared in December in order to be available for the legislative session. Because policymakers usually are better able to evaluate the basic economic assumptions underlying the forecast (employment and income growth, interest rates, oil and natural gas prices, etc.) than to evaluate the revenue figures per se, the October estimate is accompanied by a report on the outlook for these factors. The December estimate is also accompanied by an updated economic forecast.

A built-in conflict exists between the requirements of those who prepare expenditure budgets and those who estimate revenues. The former typically want estimates as soon as possible, while the latter wish to delay making estimates as long as possible. There is unfortunately, a trade-off between immediacy and accuracy; the earlier an estimate is

prepared, the less accurate it is likely to be. The preliminary October and the final December dates represent a compromise between the needs of the two groups.

Estimates may be revised one or more times during the course of a legislative session. In deciding whether to revise during the session, the critical guideline is whether the revision will improve the decision-making process. Small revisions late in a session usually are not particularly desirable because they may appear politically motivated for purposes of supporting some specific project. Generally speaking, session revisions are useful only if some definitive change in circumstances (e.g., a new law enacted by the U. S. Congress) has occurred.

Obviously a special session called mid-year to consider financial matters would require preparing a special set of revenue estimates. Otherwise, there is no compelling reason for interim estimates so long as an adequate tracking system is in place. Nevertheless, quarterly revisions have been proposed repeatedly in recent years. Quarterly estimates are, however, likely to prove more confusing than helpful, since policymakers would have to keep track of twice as many estimates, while only half of the estimates (the October and December sets) would be directly applicable to the budget process. Frequent revisions are also likely to make evaluation of the revenue estimating process much more difficult. By selecting the best of a set of four revenue estimates, the estimating process can be made to appear better than it really is!

Policymakers obviously need to anticipate the future state of government finances long before the October ranges are presented. They need to know what kind of fiscal adjustments are likely to be necessary or desirable. Should they focus their efforts on raising taxes or cutting programs (if the revenue outlook is poor), or on cutting taxes or augmenting programs (if the outlook indicates a probable surplus)? Must proposals for

expanded services be accompanied by revenue proposals or can they be absorbed with no revenue law changes? General guidance in these matters is available through a revenue tracking system. Such a system calls for dividing the annual estimate for each revenue source into its quarterly components (i.e., estimate how much of the annual amount will be received in each of the four three-month periods). At the end of each quarter, the estimates can be compared with actual receipts. Results should be accompanied by analysis explaining the extent to which the results represent unanticipated strengths and weaknesses, shifts in timing, administrative and similar factors. Estimate tracking provides early warning for unanticipated year-end shortfalls or surpluses, and at least qualitative indications of probable directions and magnitudes of future revisions. Information provided by a tracking system is useful as an interim forecast, which is likely to be greatly modified by the next legislative session. A basic tracking system has largely been in place for the past few years, and has worked reasonably well.

Components of the Revenue Estimating Process

The revenue estimating process has four phases:

1. Research. This phase is primarily carried out by the DFA (Department of Finance and Administration) and the TRD (Taxation and Revenue Department) staffs and consists of developing forecast methodologies, including defining relationships between economic performance and revenue collections, and gathering statistical information from internal and published sources. Research is a year-round activity.

2. Developing Basic Forecast Assumptions. Assumptions are developed by the TRD, DFA and LFC (Legislative Finance Committee) staffs, subject to review by policymakers. At present, the three agencies have contracted with the Bureau of Business and Economic Research, UNM, to maintain and upgrade an econometric

model which forecasts income and employment growth in New Mexico. (See Section III for a description of the model.) Staffs of the three agencies are responsible for overseeing work on the model. Forecasts are prepared, evaluated and modified on a quarterly basis. In addition, the staffs of the three agencies meet or consult with other public agencies and representatives of private industries associated with individual revenue sources. These consultations begin in October, and often are repeated as the legislative session draws near. As mentioned, two sets of assumptions are prepared. In October, the assumptions underlying the current year forecast are revised and economic assumptions for the forthcoming fiscal year are prepared. In December, final assumptions underlying the forecast are developed and reported along with final estimates. In both instances reactions by policymakers are sought. Obviously, this is the most controversial phase of the revenue estimating process. It is difficult to describe or explain how differences of opinion are reconciled because each situation tends to be unique. Rarely, if ever, are all participants in the process satisfied with all the basic economic assumptions. But there is a tendency for most to accept the final result if only because being adamant about the future course of events seems foolhardy! Then, too, the objective is not so much to be "right" (which is impossible except by accident), as it is to arrive at a reasonable basis for developing a budget. Participants often exit the process with a feeling that one component of the forecast is too optimistic (or pessimistic) but that other factors may be offsetting.

3. Developing the Revenue Forecast. In this step, relationships developed in the first (research) phase are applied to the basic economic assumptions to derive a revenue estimate. Work is performed basically by the TRD and the DFA staffs. The process sounds deceptively simple; in some cases, the critical aspect of projecting revenues from a particular source is making correct adjustments for shifts in timing or

changes in administrative policy. For example, withholding tax rate changes reflecting 1986 rate increases altered timing of the 74th fiscal year's income tax revenue collections. The timing change had a major impact on revenue estimates.

4. Tracking the Revenue Estimates. This phase has only recently been formally incorporated into the revenue estimating process. As explained above, the tracking system involves dividing the annual estimate into four quarterly components. At the end of each three-month period, actual collections are compared with estimates to determine if estimates are on track. Differences are analyzed to determine if they reflect unexpected weakness or strength; or if other factors have contributed to the discrepancies. The tracking system is designed to provide early indications of potential budget problems as well as probable directions of future revenue revisions. The DFA also reports monthly on cash flows, a process which gives yet another early indication of possible budget problems.

5. Long Range Revenue Estimates. Beginning in December 1987, long range estimates of the major general fund revenue sources have been prepared. In December, 1988 these covered the three year period 1989-90, 1990-91 and 1991-92. Gross Receipts, Compensating, Personal Income, Corporate Income, Estate, Oil & Gas Severance, 7% Conservation, Natural Gas Processor's Tax, Resource Excise, Motor Vehicle Excise and Selective Taxes are estimated by TRD. Similar detail for interest and other taxes is estimated by DFA/EAU (Economic Analysis Unit).

Summary of the Revenue Estimating Calendar
(Note: Some dates vary from year to year.)

August - Review of preceding fiscal year and quarterly estimates for current year presented to LFC; FOR-UNM quarterly meeting.

September - Begin consultation with agencies and industry.

October - Develop and present to LFC preliminary ranges for economic assumptions and revenue estimates; continue consultations with agencies and industry; work on final estimates.

November - Review of first quarter actuals presented to LFC; preliminary revenue estimates reviewed internally; FOR-UNM quarterly meeting.

December - Final assumptions and revenue estimates presented to LFC and published in Budget.

January - Review of second quarter actuals presented to LFC; Session revision if necessary.

February - Session revisions if necessary; FOR-UNM quarterly meeting.

April - Review of third quarter actuals presented to LFC.

May - FOR-UNM quarterly meeting.

Yearround - Review revenue estimating techniques and update data files.

III. DEVELOPING ECONOMIC ASSUMPTIONS

Economic assumptions are developed with the help of technical information gathered from several sources, the most important of which are described below.

General Description of the FOR-UNM Model

The FOR-UNM model is a state level econometric model originally developed by the Bureau of Business and Economic Research (BBER) and the Economics Department of the University of New Mexico (UNM). The model is maintained, updated, and operated by the BBER. Like all econometric models, FOR-UNM consists of a series of simultaneous equations relating various sectors of the economy. It utilizes a wide range of economic variables at the state level and some at the national level (e.g., gross national product, interest rates, and inflation) to estimate coefficients of the economic variables employed in the model. Once the coefficients are estimated, the model utilizes the values of the national variables as forecasted by national economic forecasting firms to forecast the economic variables at the state level (and hence the conditions of the New Mexico economy) for the up-coming eight quarters, and twice annually for the up-coming four years. National forecasts used in preparing the FOR-UNM forecasts are currently from the Data Resources Inc. (DRI) quarterly U. S. econometric model.

The FOR-UNM model forecasts several key economic variables such as personal income and its major components (wages, transfer payments, etc.), employment and wages by major industry, labor force, and population for the State as a whole and for the Albuquerque SMSA (Bernalillo County). The forecast is currently being expanded to include variables for the Santa Fe and Las Cruces SMA's. This information, and information from other sources, forms the basis for economic assumptions of personal income and employment growth. Interest rate forecasts are taken from national

econometric model forecasts, particularly those of Wharton and DRI. Minor adjustments are performed on national econometric model interest rate estimates. Oil and gas price and production estimates are done separately as described in Section IV. Once economic assumptions are made, revenues from various tax categories such as gross receipts, personal and corporate income taxes, and oil and gas severance taxes are estimated. Since May, 1986, the FOR-UNM model has been run on a Personal Computer using Wharton's AREMOS software. "Downloading" the model from a mainframe computer has given added flexibility and access to its information as well as reducing forecasting costs.

National Econometric Models

In addition to the agreement with the BBER at UNM for the FOR-UNM model, TRD, DFA and the LFC also subscribe to DRI's monthly publication. The monthly publication presents forecasts of many economic variables (at the national level) from DRI's quarterly national economic forecasting model. Gross national product, various interest and inflation rates, and U. S. employment levels are among economic variables utilized in making the New Mexico economic assumptions.

Aside from DRI, a number of other organizations are engaged in economic forecasting activities. The LFC and DFA subscribe to the publications, for example of Wharton Econometric Forecasting Associates. Wharton's monthly publication forecasts a wide range of economic variables (comparable to DRI's publication) resulting from Wharton's national economic forecasting model.

VI. ESTIMATING REVENUES

This section describes the revenue estimating methodology for each of the General Fund revenue sources estimated by TRD, Tax Research Office. For each tax a description of the revenue source is provided, along with a discussion or listing of data sources. Next, the methodology for projecting revenues in the current and upcoming fiscal years is described and the computations are shown. Techniques for deriving quarterly breakdowns of the annual forecast are then discussed. Finally, a review of the preceding year's estimate is presented. In the case of revenues for which the data-gathering process is relatively involved, a summary of procedures is provided.

1. GROSS RECEIPTS TAX

DESCRIPTION

Unlike the great majority of states, New Mexico does not have a "general sales tax." Instead, New Mexico levies a "gross receipts tax." Two major characteristics of the State's gross receipts tax should be noted. First, the tax is levied on the seller rather than on the purchaser. In most states, the general sales tax is levied on the purchaser, although the seller collects the tax. Second, New Mexico's tax is much more broadly based than is normally the case with sales taxes.

An gross receipts tax of 4.75% of gross receipts is imposed for the privilege of doing business in New Mexico. This rate represents the effective rate upon which the State collects taxes on transactions outside municipalities. Within municipalities, there is a tax credit against the State tax for municipal gross receipts taxes up to .5%. In addition, municipalities receive an automatic distribution of 1.35%. Therefore, within municipalities the effective state tax rate of 4.75% is reduced to a residual rate of 2.9%; first by the .5% credit to 4.25% and again by the 1.35% municipal distribution.

"Gross receipts" is defined as the total amount of money or value of other consideration received from selling property (including tangible personal property handled on consignment in New Mexico), from leasing property employed in New Mexico and from performing services in New Mexico. The definition excludes cash discounts allowed and taken, New Mexico gross receipts tax, local option gross receipts taxes, gross receipts or sales tax imposed by an Indian tribe or pueblo, and any type of time-price differential.

Some activities and industries are exempt from this tax, many by virtue of their taxation under other laws. Exemptions include wages, certain agricultural products, dividends and interest; and gas, oil or mineral extraction. Various deductions are allowed; however, the

general presumption is that all receipts of a person engaging in business are subject to the tax. (See Section 7-9-12 NMSA, 1978 for exemptions, and Section 7-9-45 NMSA, 1978 for deductions.)

Collections are first deposited in the TAA Suspense Fund for the purpose of making disbursements for refunds, etc. (7-1-6). On the last day of each month, the balance is transferred to the State General Fund, less a disbursement to the incorporated municipalities of 1.35 percent of the taxable gross receipts reported in each municipality for the month of deposit, and less a disbursement of 2.15 percent of the value of jet fuel which is distributed to the Aviation Fund for airport construction and maintenance. It should be noted that the disbursement to municipalities is their major source of revenue.

Local Option Gross Receipts Taxes

There are five local option gross receipts taxes: (1) the County Gross Receipts Tax; (2) The County Fire Protection Excise Tax; (3) the Municipal Gross Receipts Tax; (4) the Municipal Supplemental Gross Receipts Tax; and (5) the Special Municipal Gross Receipts Tax. Although these taxes differ somewhat in their requirements for adoption and the purposes for which receipts may be devoted, they share a number of common features.

All of the taxes have the same base as the State gross receipts tax, except that transmission of messages by wire or other means, and transporting persons or property for hire by railroad, motor vehicle, air transportation or any other means from a point within the local jurisdiction to a point outside the local jurisdiction are excluded from the base of the local option taxes. All of the taxes must conform to the State gross receipts tax, and must be adopted using model statutes provided or approved by the Revenue Division of the Department of Taxation and Revenue. All of the taxes are administered by the Department which collects them at the same time and in the same manner as the State

gross receipts tax. The Department distributes receipts to local jurisdictions by the 20th of the month following the month of collection. The Department is authorized to charge an administrative fee of up to 3 percent of receipts, but currently charges only 1.2 percent. (However, the Department may not impose an administrative fee on receipts due to the first .5 percent of a municipal gross receipts tax rate.) All of the local option taxes must have an effective date of either January 1, or July 1, to ease compliance and administration of the taxes.

DATA SOURCES

The gross receipts tax (including local option taxes), along with the compensating tax and withholding tax, are reported to the Taxation and Revenue Department on the CRS-1, "Combined Report Form." Gross receipts, deductions, and taxes due are reported by location (including "out-of-state"). Returns must be filed by the 25th day of the month following the month of activity, except that taxpayers with anticipated CRS tax liabilities of less than $100 per month may file on a six-month basis.

All data from CRS-1 forms are key-entered onto the CRS masterfile. In addition, all data from amended returns and most audit assessments are currently entered on the masterfile (eventually, all audit assessments will be handled "on-line"). The dollar amount from CRS returns processed in a month sets the target amount for closing. Since some of the returns filed in any month contain errors which keep them from balancing, they are replaced by returns filed at the beginning of the following month. Normally, the replaced and replacing returns are similar in their distribution of receipts between gross receipts, compensating, and withholding taxes, and in the geographic location of gross receipts. Thus, distributions to specific funds and local governments are typically not much affected by this method of closing.

The principal statistical output from the CRS system is the RP-80 report. It is produced monthly, quarterly, and annually (on both a calendar and fiscal year basis). It covers all returns included in the closing(s) for each period. Prior to March, 1984, the RP-80 showed for each location (all incorporated cities, the unincorporated areas of each county, and out-of-state, as well as county and State totals), and for each of the (abbreviated) SIC categories for each area in which a CRS return was filed, the number of returns filed, the gross receipts and deductions reported, and the computed tax due. The last amount was derived by simply multiplying the statewide gross receipts tax rate (formerly, 3.75%) by taxable gross receipts (the difference between gross receipts and deductions). Beginning with the March, 1984 RP-80, the data items were changed by substituting taxable gross receipts for deductions, and actual gross receipts tax reported (including local option taxes) for computed tax due. In addition, totals by SIC category for all inside municipality areas and all reminder of county areas were added. (A note of caution: RP-80 summaries from March, 1984 through October, 1986 appear to overstate the tax base and should not be used in connection with revenue estimates.)

In addition to the RP-80 report, many other reports are generated from the CRS system, two of which may be useful for forecasting gross receipts. One is the RP-90 report, which currently is produced on a monthly, quarterly and annual basis, and shows the same data elements as the RP-80 for gross receipts (and also data for the compensating and withholding taxes), but only by industry. There is also a timing difference between the RP-80 and the RP-90. The RP-80 covers all returns included in the closing for a month, regardless of when the activity covered by the return occurred. The RP-90 covers only those returns filed and included in closings in the two months following the month of activity. Thus, the RP-90 more closely reflects actual economic activity in any particular month than does the RP-80.

The other report of possible benefit is the RP-170, which shows the breakdown of local option taxes by location. It is from this report that the vouchers for local government gross receipts distributions are derived. Beginning in March, 1984, the RP-170 was supplemented by the RP-490, which shows a breakdown by location of gross receipts distributions to local governments. Future changes to the CRS system will tie distributions for each month to receipts and taxes due reported in the RP-80.

Beside formal reports, it is sometimes necessary to obtain information on a single taxpayer or small group of taxpayers. An example is the continuing tracing of the ERDA contractors, for which separate revenue estimates were made in the past (see "Methodology" section, below). Another example is provided by the Pittsburg-Midway decision, which resulted in three separate, and quite large, payments for back taxes, penalty, and interest. In cases like these, assessments have been made and the assessments and payoffs on them must be used in making revenue estimates. Note, however, that normally we do not count any assessed amounts as revenues until the assessment is paid, since there is usually no guarantee that payment will be made. Further, most assessments (and refunds) are part of the normal collection process, and therefore are already built into the normal revenue estimates. Only an "abnormal", and therefore "large", assessment or refund need be separately accounted for. It is not clear exactly how large the assessment or refund need be, but certainly not less than $1 million for gross receipts (less than ¼ of 1% of total General Fund gross receipts revenues), and it seems unlikely that underlying gross receipts estimates should be revised for less than perhaps $5 million, or about 1% of collections (and then, only in the context of an overall General Fund revision).

METHODOLOGY

A number of methods and models have been used over the years by TRD and/or DFA to estimate gross receipts revenues. Much of this work is described in "Gross Receipts Tax Revenue Estimating Model," a paper prepared by the Public Finance Research Program at UNM in September, 1977 for TRD. Also, a separate paper on gross receipts models is in preparation which will describe and compare some of the previously used models as well as models which have been considered but not used. Therefore, only the model currently in use by TRD is described here.

The current model consists of a single, log-linear regression model to forecast the gross receipts base and a single, linear regression model to forecast the fraction of taxable gross receipts outside municipalities (hence, the effective General Fund gross receipts rate). In order to estimate the equation under current law, it was necessary to add both ERDA and P-M gross receipts into the tax base data generated by the RP-80 prior to the third quarter of 1983. Also, a dummy variable has been added to explain the loss of gross receipts base due to the deduction allowed since July, 1984 for real estate commissions on new improvements. In future, a dummy variable for the loss of taxes on food stamp sales will have to be added.

The main explanatory variable in the gross receipts base equation is current non-agricultural private (i.e., non-government) wages and salaries. The rationale for such a specification is that gross receipts represent roughly some constant markup on wages and salaries. So long as this is true, and (since markups differ by industry) the composition of gross receipts by industry remains stable or grows in a stable manner, the equation should perform well.

The variables used in the gross receipts base regression are:

ln TGR	= log of taxable gross receipts
ln WS	= log of non-agricultural private wages and salaries (from the FOR-UNM data base or forecasts),
TREND x lnWS	= trend times the log of non-agricultural private wages and salaries (this variable allows a trend in the coefficient--elasticity--for ln WS),
DRE	= dummy variable (1 prior to 1984:2, 0 thereafter) for the loss of gross receipts base due to the deduction for real estate commissions on new improvements,
D1, D2, D3	= seasonal dummy variables, meant to correct for the fact that TGR is roughly a month lagged behind WS.

In the past, taxable gross receipts figures were taken from the quarterly RP-80 reports, with adjustments as noted for the ERDA and Pittsburgh-Midway case settlements. However, a persistent upward bias was noted in the taxable gross receipts receipts figures, as determined by comparing actual tax collections with computed tax collections. Therefore, in reestimating the current year equations, the tax base was adjusted in accordance with the ratio of actual gross receipts tax collections to computed tax collections, a procedure which implicitly assumes that the effective tax rate computed from the RP-80 was correct. On a back-cast basis, this techniques reduced the taxable receipts predicted by he model for last fiscal year by about $10 million.

The equation with parameter estimates and "t" statistics in parentheses is as follows, estimated over 1976:1 to 1987:2 (46 observations):

$$\ln TGR = \underset{(-2.570)}{-2.5874} + \underset{(9.56)}{1.2537}\ln WS - \underset{(-1.30)}{.0005}\,TREND*\ln WS + \underset{(.50)}{.0154}\,DRE$$

$$+ \underset{(1.84)}{.0364}\,D1 + \underset{(1.13)}{.0222}\,D2 + \underset{(1.25)}{.0246}\,D3$$

$R^2 = .984, \quad DW = 1.88$

These results indicate that the variable ln WS is highly significant, but an elasticity of the gross receipts base to changes in non-agricultural private wages and salaries of nearly seems to be unrealistically high. The trend in this coefficient is slightly negative, but the trend variable has a very small coefficient, and is not significant, so it could be considered zero (i.e., the trend variable could be dropped). The real estate commission dummy variable gives reasonable results, but its "t" value indicates it is not very significant. The seasonal dummy variables are significant at about the 10% level and indicate some seasonality. The R^2 statistic indicates that the regression fits well and the DW statistic indicates that there is no serial correlation.

Forecasting with this equation is relatively easy, since only one exogenous variable (WS) is needed to make forecasts. Another advantage of the equation is that wages and salaries are forecast fairly well by the FOR-UNM model. For example, the November, 1984 forecast for wages and salaries for the following fiscal year (covering the quarters 1985.3-1986.2) was just .37% off the actual for the year as a whole:

Quarter	Amounts (in $billions) Forecast	Actual	Percent Error
1985: 3	9.620	9.718	-1.01
4	9.820	9.875	-.56
1986: 1	9.980	9.978	+.02
2	10.210	9.913	+3.00
Year Average	9.908	9.871	-.37

For the past two years, a second equation has been used in the gross receipts tax forecast. This equation was used to forecast the share of receipts attributable to transactions outside municipal boundaries, transactions which would accrue revenues to the General

Fund at the full statewide rate 4.75%, rather than just 2.9%. Last year, this share, known as the outratio, was not successfully forecast by the equation which, as was suspected, produced a result lower than that indicated by the RP-80 data. This year, the equation was not used and, instead, it was estimated that the outratio would not fall below 24% on the average. After obtaining taxable receipts and outratio forecasts, a final step involving adjustments for special factors and for penalty and interest, administrative fees, distributions for the Aviation Board and for the county equalization must be made. Procedures for accounting for these adjustments are discussed below.

FORECASTS FOR the 76TH AND 77TH FISCAL YEARS

Step 1 - Obtain forecasts of variables from FOR-UNM and DRI. - As noted above, the estimating period for the taxable receipts equation ran through 1987:2 (the second quarter of calendar year 1987). The model forecast, therefore, requires private wage and salary forecasts for 1987:3 to 1989:2. The data used is from the November, 1987 run of the FOR-UNM model.

Step 2 - Run model to obtain forecasts of TGR. - The forecast values of variables were entered into the SAS regression program (which automatically generates the trend and dummy variables for the equation), and run. The forecast values of TGR, after conversion from logs, are as follows:

Quarter	Forecast Value of TGR ($ millions)	Quarter	Forecast Value of TGR ($ millions)
1987: 3	4,009.0	1988: 3	4,107.6
4	3,926.5	4	4,060.3
1988: 1	4,085.5	1989: 1	4,260.7
2	4,037.6	2	4,243.7
76th FY	16,058.6	77th FY	16,692.4

Step 3 - Estimate and apply average General Fund Gross receipts tax rate. - Using the OUTRATIO estimate of .24 and the fact that the General Fund effective tax rate on sales outside municipalities is 4.75% and on sales inside 2.9%, an overall General Fund rate is computed equal to 3.344%.

Step 4 - Adjustments. - A number of elements of gross receipts collections are not covered by the base estimate. Estimates for these elements must therefore be made separately, and then added to the base estimate. These separate estimates are shown below for the 76th and 77th fiscal years.

The adjustments are: (amounts in $millions):

Reason for Adjustment	76th FY	77th FY
Aviation Fund	-.600	-.600
County Equalization Dist.	-1.020	-.800
Penalty and Interest	3.100	3.500
Administrative Fee	1.130	1.440
Food Stamps	-1.950	-3.000
Boat Tax	-.450	-.500
Enhanced Collections (CACS)	11.000	10.000
Total Adjustments	11.210	10.040

Explanations or sources for these estimates are:

Aviation Fund. - The current year estimate represents approximately the amount distributed in the first quarter of the fiscal year (.143 $million), annualized. This distribution is expected to be unchanged for the next fiscal year.

County Equalization Distribution. - Counties that have imposed a county gross receipts tax of at least .125% receive a distribution each September of the difference between what they would have received from a statewide per capita distribution of the amount raised from a statewide .125% gross receipts tax rate (regardless of the rate), and the amount they actually received from their gross receipts tax. The amount shown is the actual amount distributed. The distribution will decline next year because Valencia County is expected to lose its distribution.

Penalty and Interest. - This represents the amount collected in the first quarter of the 76th Fiscal Year ($.689 million), annualized on the basis of the average first quarter share of the preceding calendar year. The amount should increase next year with expansion of the audit program tied in with the CACS system.

Administrative Fee. - This represents the amount received during the first three months ($.241 million) increased in the second half to reflect tax increases in Albuquerque and Santa Fe which will be subject to administrative fee charges. Next year's fees increase as a result of a full year of higher tax rates in these and other communities.

Food Stamps. Effective October 1, 1987, food stamps issued by the USDA deposited by a food store in a financial institution are exempt from gross receipts taxes. Approximately $100 million in foodstamps are issued in New Mexico, and nearly all sales occur within municipalities. The annual cost, therefore is around $2.9-3.0 million, but the loss in the current year is adjusted to reflect just seven months of impact in the last part of the current year.

Boat Tax. The 1987 Legislature removed the sales of boats from the gross receipts tax and imposed a separate boat tax. The impact estimate is based on the FIR, and the estimate for

the 76th fiscal year reflects 11 months of impact while that for the 77th fiscal year reflects 12 months of impact.

Enhanced Collections. This adjustment is, perhaps, the hardest to explain. In June, the Department's new Computer Assisted Collection System began sending notices to nonfilers. Subsequently, other collection steps were implemented. Coincidentally, gross receipts tax transfers to the General Fund experienced an upward surge beyond an amount that would seem to be in line with economic trends. Much of the increase appears to be attributable to the new collection system. In the first quarter, about two million dollars of July's increase and one million dollars each for August and September appear to be attributable to improved collections. The amounts are expected to gradually diminish over the year as delinquent taxpayers become current. Next year, the ongoing impact of perhaps $.5 million per month will be boosted by increased audit effort, for which four million dollars has been "plugged" into the estimate.

ANNUAL AND QUARTERLY ESTIMATES.

The following tables combine components of the gross receipts tax estimate into a quarterly forecast, which is aggregated to produce annual totals.

76th Fiscal Year (1987-88)	Fiscal Year Quarter				
	I	II	III	IV	Total
Base (TGR) ($M)	4,009.0	3,926.5	4,085.5	4,037.6	16,058.6
OUTRATIO (%)	24.0	24.0	24.0	24.0	24.0
Average tax rate(%)	3.344	3.344	3.344	3.344	
Base Estimate ($M)	134.060	131.300	136.620	135.020	
Adjustments ($M)					
Aviation Fund	-.150	-.150	-.150	-.150	
County equalization dist.	-1.020	0.0	0.0	0.0	-1.020
Penalty and Interest	.700	.800	.800	.800	
Administrative Fee	.240	.240	.300	.350	
Food Stamp	0.0	-.490	-.730	-.730	
Boat Tax	-.090	-.120	-.120	-.120	
Enhanced Collections (CACS)	4.000	3.000	2.000	2.000	
Total Adjustments	3.680	3.280	2.100	2.150	
Final Estimate ($M)	**137.740**	**135.580**	**138.720**	**137.170**	

77th Fiscal Year (1988-89)	Fiscal Year Quarter				
	I	II	III	IV	Total
Base (TGR) ($M)	4,107.6	4,060.3	4,260.7	4,243.7	16,672.3
OUTRATIO (%)	24.0	24.0	24.0	24.0	24.0
Average tax rate (%)	3.344	3.344	3.344	3.344	
Base Estimate ($M)	137.360	135.780	142.470	141.910	
Adjustments ($M)					
Aviation Fund	-.150	-.150	-.150	-.150	
County equalization dist.	-.800	0.0	0.0	0.0	-.800
Penalty and Interest	.800	.900	.900	.900	
Administrative Fee	.360	.360	.360	.360	
Boat Tax	-.120	-.130	-.120	-.130	
Enhanced Collections (CACS)	1.500	1.500	1.500	1.500	
Audit	1.000	1.000	1.000	1.000	
Foodstamps	-.750	-.750	-.750	-.750	
Total Adjustments	1.840	2.730	2.740	2.730	
Final Estimate ($M)	**139.200**	**138.510**	**145.210**	**144.640**	

REVIEW of 75th FISCAL YEAR (1986-87) ESTIMATE

Revenues for the 75th fiscal year ($514.2 million) were significantly lower than the estimate of $533 million. By the end of the year, it had become apparent that ever since March, 1984, when the new CRS system began tabulating data for the "Report 80", significant over-reporting of taxable receipts had occurred. Thus, the regression analysis which serves as a basis for forecasting taxable receipts is flawed by the existence of three years of inaccurate quarterly "observations". At the time the forecast was prepared for the 75th fiscal year, there was a suspicion that the Report 80 data were unreliable, but uncertainties over the role played by the amnesty program in inflating the taxable receipts base made it difficult to sort out the source of error in the prior year's estimate.

The following table summarizes the sources of error in the 75th fiscal year forecast:

	Actual	Estimate	Difference
Base Forecast	$513.3	$531.5*	$-18.2
Amnesty	0.0	+.5	-.5
Administrative Fees	+.8	+.7	+.1
Principal & Interest	+3.2	+3.5	-.3
Aviation Fund	-.5	-.6	+.1
County Equalization	-2.6	-2.6	0.0
General Fund Distribution	$514.2	$533.0	$-18.8

* Estimate of $540.1 shown in the Revenue Estimating Manual reduced by $8.6 million, i.e., the adjustment needed to reflect the lagged impact of the July, 1986 rate increase.

Clearly, nearly all the error was due to the base estimate error. One partial explanation of the difference between actual and expected revenues lies in the treatment of refunds. Total refunds for the year were $5.3 million, of which somewhat more than 60%, or $3.4 million, were probably attributable to the General Fund. It is not entirely clear that a separate adjustment is required for refunds because refunds processed "on-line" should be reflected in a reduction of taxable receipts. However, it is not known whether or not the majority of refunds are processed in this fashion, so a prudent approach in the future would be to make a nominal adjustment in the forecast to account for the payout of refunds.

Even if a large adjustment is made for refunds, there remains a significant discrepancy between actual taxes and taxes computed on the basis of the RP-80. As noted, this report seems to have had a persistently high bias. The table on the next page attempts to segregate the estimating error attributable to the model from the estimating error attributable to the RP-80 data problem. (Note that while the table below refers only to General Fund revenues, the same conclusion is drawn when local distributions are also taken in account). The complete comparison is made only for the first three quarters of the fiscal year. In the fourth quarter, the problems with the RP-80 had become sufficiently well recognized that a change was made in the processing of data, a change which involved the loss (temporary, one hopes) of one month of data.

Comparison of Estimated, Computed and Actual
Gross Receipts Tax Revenues: 75th Fiscal Year

Year (Quarter):	1986.3	1986.4	1987.1	1987.2	Total
Estimated:					
Taxable Gross Receipts	4,064.3	3,916.7	4,080.6	4,088.8	16,150.4
Effective Rate	3.350	3.358	3.344	3.326	3.344
Tax (base estimate)	127.6**	131.5	136.5	135.9	531.5
Computed RP-80:*					
Taxable Gross Receipts	4,059.5	3,976.9	4,014.7	N/A	N/A
Effective Rate	3.350	3.344	3.330	N/A	N/A
Tax (computed)	127.4**	133.0	133.7	N/A	N/A
Actual:					
Tax Distribution to General Fund	123.2	128.2	129.8	129.0	510.2
Tax plus Aviation and County Equalization	126.0	128.3	129.9	129.1	513.3
Tax adjusted for Refunds***	126.6	128.8	131.0	130.3	516.7

* Sum of monthly reports.

** Adjusted to exclude $8.6 million loss attributable to lag in rate change. This amount has been subtracted from the base estimate of $540.1 shown in the Revenue Estimating Manual.

*** This line should be comparable to the base estimate of taxes before refunds.

The table shows that for the first three quarters of the year, the gross receipts tax estimating model predicted base receipts of $395.6 million, only $1.5 million higher than revenues computed on the basis of the RP-80, which amounted to $394.1 million. At the same time, the actual state gross receipts tax share (including the Aviation Fund and the county make-up distribution) amounted to just $384.2 million without refund allowances. Even allowing for refunds, total tax revenues were just $386.4 million. Extrapolating the discrepancies displayed by the first three quarters and applying them to the year as a whole, and also taking account of the refund situation, the following break-out of the $18.2 million error can be made (millions of dollars):

Cause of Error	Amount
Refunds	$ 3.4
Model ($1.5 annualized)	2.0
Data Problems	12.8
	$18.2

As a follow-up of the above analysis, the gross receipts base tax model was rerun using adjusted taxable receipts data for 1984-86. The new quarterly estimated "actual" data was derived by comparing actual state and local tax collections for the state with the computed tax shown on the RP-80. If actual collections fell short of computed collections, the base was adjusted downward accordingly. In other words, the effective state and local tax rate was assumed to be correct, but the base was assumed to be incorrect. A re-estimate of the coefficients for the tax base equation yielded a revised "backcast" for 1986-87 of base collections of $519.8 million, or just $5.6 million more than the actual base of $513.3 million (including distributions to Aviation and County Equalization Funds). This is far smaller than the $18.2 million difference derived from the old equation.

2. COMPENSATING TAX

DESCRIPTION

For the privilege of use, consumption or storage (other than for subsequent sale in the ordinary course of business) of tangible personal property in New Mexico, an excise tax of 4.75% of the value is imposed on the person using the property. Value is determined at the time of acquisition or introduction into the State, whichever is later, or of conversion to use by the manufacturer of certain categories of property.

The purpose of this tax is to provide revenue and to protect New Mexico businesses from the unfair competition that would otherwise result from the importation of property without payment of the gross receipts tax. Thus, the compensating tax is applied in situations where the gross receipts tax has not been paid. (Many states refer to such a levy as a "use" tax.) A credit is allowed for sales tax paid to another state. Collections, net of refunds, etc., are placed in the State General Fund, after appropriate transfers are made to the Aviation Fund (see description of this disbursement under the "Gross Receipts Tax" section), and to the Small Cities and Small Counties Assistance Funds (see description below).

Small Cities Assistance Fund

Section 3-37A-3 NMSA 1978 establishes a Small Cities Assistance Fund into which 8% of net compensating tax receipts are placed. Funds are distributed in January by formula.

Small Counties Assistance Fund

Section 7-1-6.5 provides that 10% of net compensating tax receipts be placed in the Small Counties Assistance Fund. Funds are distributed on or before September 15 each year in accordance with criteria established in Sections 4-61-2 and 4-61-3.

FORECASTS FOR THE 76TH and 77TH FISCAL YEARS

Prior to last year, a regression equation using mining-related activity indicators as the primary explanatory variables served as the basis for forecasting compensating taxes. A year ago, it became apparent that compensating tax collections were not as sensitive to fluctuations in mining variables as the analysis presupposed and that the equation would severely underestimate revenues.

Compensating tax revenues are quite volatile and can exhibit year-to-year declines, though the increase in the price level assures a long-term increase. Last year's estimate of $17 million in General Fund revenues ($20-21 million total) was based upon an analysis of what the historical, inflation-adjusted, minimum tax base would be. In fact, the estimate was about 13% too low, and General Fund revenues actually came in at $19.5 million. This year's General Fund estimate of $18 million is simply an extrapolation of the first five months of collections, which averaged $1.5 million. Next year's estimate of $19 million represents a 5.5% growth rate, roughly the rate of increase in the tax base for gross receipts taxes.

3. TOBACCO TAXES (Cigarette and Tobacco Products)

CIGARETTE TAX

DESCRIPTION

An excise tax of seventy-five one-hundredths of one cent is levied for each cigarette sold, given or consumed in this State, i.e., fifteen cents per package of twenty cigarettes (7-12-3). The tax was changed from $0.006 per cigarette to $0.0075 effective July 1, 1986. Cigars and other tobacco products are not taxed under this Act, but are taxed under the Tobacco Products Tax Act. Most sales of cigarettes to agencies of the United States government are exempted (7-12-4). There are administrative provisions for registration of sellers of cigarettes and for affixing stamps to taxed packages of cigarettes. A license fee of one-eighth of one percent of Gross Receipts is paid by those affixing stamps outside the state (7-12-5). Discounts are allowed to purchasers of stamps to defray the cost of affixing them. The discount amount, depending on the monthly volume of stamps purchased, may be 4%, 3%, or 2% of the face value of the stamps. Refunds are allowed on unused or destroyed tax stamps (7-12-8). The tax is administered by the Revenue Processing Division of the Taxation and Revenue Department.

The net receipts attributable to the cigarette tax are distributed as follows:

1. One-fifteenth to the County and Municipality Recreation Fund (7-1-6.11 and 7-12-15).
2. Two-fifteenths to the County and Municipality Cigarette Fund (7-1-6.11 and 7-12-16).
3. Three-fifteenths to the dedicated Health Research Fund (7-1-6.11 and 24-20-1).
4. The remaining nine-fifteens go to the state General Fund.

Collections are first deposited in the Suspense Fund for the purpose of making disbursements for refunds, etc. (7-1-6). On the last day of each month, the balance is transferred to the state General Fund, less the disbursements to the County and Municipal Recreation Fund, the County and Municipal Cigarette Fund, and the Dedicated Health Research Fund as described above (7-1-6.11). Also on the last day of the month, the State treasurer disburses the prior month's Recreation Fund and Cigarette Fund Receipts to each county and municipality in the proportion that the sales of cigarettes made within each location bears to the total sales in the State (7-12-15, 7-12-16). It should be noted that local governments receive their share of the cigarette tax two months after the collection month of sale of tax stamps, whereas the State General Fund, Dedicated Health Research Fund, and the Recreation and Cigarette Funds receive the tax receipts in the month following the collection month of sale of tax stamps.

DATA SOURCES

Cigarette excise tax stamp sales, on both a cash sale and consignment account basis, are processed as purchase orders (LUX-8) from the cigarette distributor to the Revenue Processing Division, and an invoice of charges (LUX-4) accompanies the order of tax stamps which are forwarded to the cigarette distributor. Payments are allowed on both a cash basis (at the time of sale) and on a consignment basis where payment is due the following month. The majority of sales are on the consignment basis. Each cigarette distributor also files a monthly report (CIG-5), due on or before the 25th of each month, which details the numbers of cigarettes and location of distribution within New Mexico. The information from these reports (CIG-5, LUX-4, and LUX-8) is reviewed, monitored, and compiled by the Miscellaneous Tax Programs section of the Revenue Processing

Division. Monthly summaries are prepared showing tax stamps sold, taxes received, and cigarette distributions by location.

Generally, the amount of money outstanding on consignment accounts is a stable proportion of sales, and payments are made in a timely manner. In some months, consignment payments are lower than would be expected, but these months are generally offset by higher-than-usual payments the following month. From the summary reports, Tax Research maintains and monitors a monthly history of the following basic numbers for use in revenue estimating:

- Cigarette excise tax stamp sales (gross reported, and computed net),
- Receipts from stamp sales (gross and net),
- Amount of discounts and refunds, and computed stamp volume of refunds
- Receipts from license fees,
- Fund disbursements (General Fund, Dedicated Health Research Fund, Recreation, and Cigarette Funds),
- Recreation and Cigarette Fund disbursements (by county and municipal government).

METHODOLOGY

Revenues from the cigarette tax are estimated by utilizing existing long term data on cigarette consumption and the current tax rate on cigarettes. Demographic and social trends, and discretionary judgement influenced by the feel for the general conditions of the economy reflected in the economic assumptions, are used to adjust the historical data and estimated tax revenues.

I. Taxable Volume Estimate.

Cigarette Excise Tax stamp sales are monitored and summarized by TRD/Miscellaneous Tax Programs on a monthly basis. The "Report of Sales and Payments for Cigarette Tax" includes the actual count of tax stamps sold during the period, and is used to determine gross cigarette tax stamp sales for the period. Tax stamps are sold to wholesale distributors and are placed on all packs of cigarettes before delivery to the retailer. Actual consumed volume (gross volume less refund volume) probably lags the quantity of stamps sold by a month or two, but this is generally of no concern.

The historical series of cigarettes taxed is computed from tax stamp sales and converted to a count of individual cigarettes:

(packages of 10's stamps x 10) + (packages of 20's stamps x 20) + (package of 25's stamps x 25) = quantity of cigarettes.

The number (approximately 2.3 billion per year) may then be converted to a count of equivalent packs of 20 (approximately 115 million per year), since it is a more widely used standard in discussions of cigarette topics. Refunded volumes are computed from refunded taxes, and are subtracted from gross stamp sales to estimate taxable volumes. The historical taxable volume series is currently evaluated through simple year-to-year percentage changes (in the range of + 6% to - 6% per year). The historic percentage share of yearly revenues attributable to individual months and quarters is also calculated.

Media and trade journals are surveyed to get a feeling for the strength and trends of the tobacco industry, and combined with any obvious trend in the New Mexico consumption patterns, to derive a probable average rate of change for annual New Mexico cigarette

taxable volume. This rate is applied to the most recent year's actual data to obtain the future year's volume estimate.

If any major changes in the cigarette market are anticipated (price, taxation, regulation, etc), a separate estimate is generally made to determine an adjusting factor attributable to any unusual change. Additionally, quarterly volume estimates are made based on the historical percentage share attributable to each quarter, for use in monitoring the actual volumes as the year progresses, and for quarterly breakdowns of revenue estimates.

II. Revenue Estimate (Distribution Methodology)

The taxable volume estimate is first multiplied by the tax rate(s) in effect over the period to determine gross sales. Since stamp sales are discounted (to defray the costs of affixing the stamps) at three different rates depending on monthly volume (2%, 3%, 4%), an estimate of expected discounts as a percent of gross sales is made based on historical data, and is subtracted from gross sales to estimate net stamp sales. The current average discount is approximately 3.2% of gross sales.

Special licenses are required for affixing cigarette tax stamps outside New Mexico, and a license fee of one-eighth of one percent of gross receipts derived from the sale of such out of state stamped cigarettes is imposed. These fees are estimated based on expected changes in volume and price from the most recent year's actual fees. The net stamp revenue is then allocated to county/municipal recreation funds (1/15th), county/municipal cigarette funds (2/15th), dedicated health research fund (3/15th), and the State General Fund (9/15ths). The license fees are distributed entirely to the State General Fund.

III. Summary of Procedures

- o Estimate **changes in cigarette consumption** (taxable volume) as a function of economic assumptions, price projections, recent historical trends, tax or regulation changes, social trends or legislation, ... etc.
- o Most recent yearly volume x **[projected consumption changes]** = est. volume.
- o Est. volume * **tax rate** = gross sales estimate.
- o less historical **discount** = net sales estimate.
- o net sales receipts estimate x **1/15** = Recreation Fund estimate.
- o net sales receipts estimate x **2/15** = Cigarette Fund estimate.
- o net sales receipts estimate x **3/15** = Dedicated Health Research Fund estimate.
- o net sales receipts estimate x **9/15** = General Fund estimate (stamps portion).
- o most recent yearly **fees** x volume growth x price growth = License fees estimate.
- o General Fund (stamps portion) + License fees = General Fund total estimate.
- o historical **quarterly factor(s)** x General Fund estimate = quarterly General Fund estimate(s).
- o Prepare separate analysis and estimate for **special situations** which could effect volumes, receipts, or timing: ie. new administrative procedures.

IV. Revisions to Quarterly or Annual Revenue Estimates

1) Based on Revenues: Cigarettes tax stamps are sold on both a cash basis, and on a "consignment" basis where payment is due in the following month. When payments are low in a month which ends a fiscal quarter, fund distributions may appear low and revisions to annual revenue estimates might be considered. Before any revisions are made, the actual volume of cigarettes (as

expressed in stamps sold) should be checked to verify that a weakness in the distributions is due to actual activity rather than overdue payments.

2) Based on Volumes: Estimates of quarterly volume are based on historical averages attributable to a given quarter and currently vary by only one or two percent (27+25+23+25 = 100). Certain years in the past have varied from these averages by as much as 3% in some quarters. For example, unusually high summer tourism might make first quarter volumes look greater than projected, but would not necessarily reflect a year long trend. Volume differences of 3% or more would imply a need for review of the annual estimate, though it may not necessarily imply a revision of the estimated total annual revenue.

V. REVENUE ESTIMATES: 72ND THROUGH 76TH FISCAL YEARS

Fiscal Year	Cigarette Volume* (Millions of Packs of 20) Actual	Cigarette Volume* (Millions of Packs of 20) Estimated	General Fund Cigarette Revenue ($000) Actual	General Fund Cigarette Revenue ($000) Estimated	Estimate Error** Volume	Estimate Error** Revenue
71st (1982-83)	128.9	N/A	11,292	N/A	N/A	N/A
72nd (1983-84)	126.5	131.2	11,100	11,500	-3.7%	-3.6%
73rd (1984-85)	125.3	125.0	11,002	11,000	Z***	Z
74th (1985-86)	126.1	125.0	11,108	11,000	+1.0%	+1.0%
75th (1986-87)	119.9	122.0	10,486	10,700	-1.8%	-2.0%
76th (1987-88)	n/a	115.0	n/a	10,100	n/a	n/a
77th (1988-89)	n/a	110.5	n/a	9,700	n/a	n/a

* Cigarette volume after imputed refunds, i.e., taxable volume.

** Estimate Error = actual less estimated, as percent of actual.

*** Z = less than 0.5%

Review and Assumptions

The 72nd fiscal year saw considerable price increases due to the doubling of the federal excise tax in January 1983 (first full year effect) and wholesale price increases during 1982 and 1983 amounting to approximately 45%. Some lag effect in a "price shock" reaction appears to have lowered cigarette volume during the 72nd fiscal year, as shown by a large increase in refunds. This decline was slightly offset by an increase in fee collections (based on gross receipts).

The 73rd fiscal year showed a relatively stable trend of slow decline in cigarette consumption. Prices (and fee revenues) remained constant. Total sales volume and refund amounts were both higher than expected but offset each other, resulting in a very small estimate error.

The 74th fiscal year revenues were expected to hold steady, but probably would have shown a slight decline, had it not been for legislative tax rate changes which shifted sales from the 75th fiscal year in a retailer attempt to beat the July 1, 1986 tax increase. Additionally, some errors of overreported fees acted to supplement the 74th fiscal year and were subsequently refunded early in the 75th fiscal year.

The 75th fiscal year showed a significant decrease in taxable sales (-4.9%) and a decrease in General Fund revenues of $622 thousand (-5.6%). The factors contributing to the decrease in taxable volume were: (1) a speed-up of retailer purchases in June, 1986 which augmented the 74th fiscal year of the expense of the 75th fiscal year; (2) the increased price differential offered by Indian reservation smokeshops; (3) the continued trend of health-oriented/anti-smoking consciousness. In addition to these factors, General Fund revenues were further decreased by a refund for out-of-state stamping fees which had been overreported during the 74th fiscal year. The cigarette inventory tax provision which accompanied the three cent tax increase of July 1, 1986 yielded approximately $223 thousand (implying an inventory level of about 7.4 million packs), most of which was distributed to the General Fund.

One factor which has been overlooked in the revenue estimate associated with the 1986 tax rate and distribution changes is the operation of consignment sales of tax stamps, which allows 30 days for payment. Although the General Fund gained on the inventory tax provision, there was some offsetting loss since some payments due at the 12 cent rate were distributed under the 15 cent rate distribution formula.

Assumptions for the 76th and 77th fiscal years assume a continuation of the recent trend of decline. The federal excise tax rate is expected to remain intact (this could present some downside risk to the forecast), and prices are assumed to remain relatively

unchanged after the December, 1987 manufacturer's price increase of 40 cents per carton (4 cents per pack). Indian reservation smokeshops will continue to see increased revenues partially boosted by the overall cigarette price increase. The price increase and the general health-oriented/anti-smoking popular trends will contribute to some decrease in "real" consumption (as opposed to state taxable consumption).

76th Fiscal Year (1987-88) Estimate (Oct., Dec., 1987)

Estimated Net Taxable Volume		115,000	thousand packs	
Tax Rate @ 15¢		x 0.15		
Gross Sales		$ 17,250	thousand	
Discounts @ 3.2%		-552	thousand	
Net Sales		16,698	thousand	
Fees:		$ 108	thousand	
Local government Recreation Fund:	16,698	x (1/15)	= $ 1,113	thousand
Local government Cigarette Fund:	16,698	x(2/15)	= 2,226	thousand
Dedicated Health Research Fund:	16,698	x(3/15)	= 3,340	thousand
State General Fund (stamps portion):	16,698	x(9/15)	= 10,019	thousand
State General Fund total =	10,019	+ 108	= $10,127	thousand

State General Fund Quarterly Revenues:

76.1	$ 2.8	million
76.2	2.6	million
76.3	2.2	million
76.4	2.5	million
FY 76 Total	$10.1	million

Estimated Net Taxable Volume	110,500	thousand packs
Tax Rate @ 15¢	x 0.15	
Gross Sales	16,575	thousand
Discounts @ 3.2%	-530	thousand
Net Sales	16,045	thousand
Fees:	$ 120	thousand

77th Fiscal Year (1988-89) Estimate (Oct., Dec., 1987)

Local government Recreation Fund	16,045	x(1/15)	=	1,070	
Local government Cigarette Fund	16,045	x(2/15)	=	2,139	
Dedicated Health Research Fund	16,045	x(3/15)	=	3,209	
State General Fund (stamps portion)	16,045	x(9/15)	=	9,627	
State General Fund Total	9,627	+ 120	=	9,747	thousand

State General Fund Quarterly Revenues:

77.1	$2.7	million
77.2	2.5	million
77.3	2.1	million
77.4	2.4	million
FY 77 Total	$9.7	million

Tax increase rule of thumb: a one cent cigarette tax increase raises about $1 million total.

TOBACCO PRODUCTS TAX

DESCRIPTION

An excise tax of twenty-five percent of the (wholesale) product value is imposed on tobacco products other than manufactured cigarettes. The Tobacco Products Tax, first instituted on July 1, 1986, is imposed on the first purchaser of tobacco in the state, and taxes are due on the twenty-fifth day of the month following the purchase. Most sales of tobacco to agencies of United States government are exempted (7-12A-4), and deductions are allowed for sales to persons in another state (7-12A-5). The tax is administered by the Revenue Processing Division of the Taxation and Revenue Department, and there are administrative provisions for registration for sellers of tobacco products.

The net receipts, including penalties and interest, attributable to the tobacco products tax are distributed to the State General Fund on a monthly basis.

DATA SOURCES

The tobacco products tax is reported monthly, using form CIG-12 which shows the value of products received, non-taxable deductions, tax due, and any applicable penalty and interest due. The report separates the value, deductions, and tax on cigars from other tobacco products. Currently, no summary of these reports is compiled and they are not used for revenue estimating purposes. Receipts attributable to the tax, penalties and interest, refunds, and returned checks are monitored through the monthly distribution cycle and published in the Department's monthly Report of Receipts and Disbursements (RS-1).

METHODOLOGY

Due to the limited history of the tax (initiated July 1, 1986) and the relatively small and stable volume of non-cigarette tobacco products, only the most rudimentary revenue estimating methodology is attempted. Monthly receipts are reviewed to determine approximate monthly averages, and these are assumed to continue through the fiscal year. The apparent tax base is calculated from tax receipts for future use in establishing a data base and revenue model, and evaluating legislative tax proposals.

REVENUE ESTIMATES

75th through 76th Fiscal Years

Fiscal Year	Tobacco Products Wholesale dollars[1] Actual	Tobacco Products Wholesale dollars[1] Estimated	General Fund Tobacco Revenue Actual	General Fund Tobacco Revenue Estimated	Estimate Error* Revenue
75th (1986-87)	6,159.5[2]	5,494.4	1,539.9[3]	1,373.6	-10.8%
76th (1987-88)	n/a	6,400	n/a	1,600.0	n/a
77th (1988-89)	n/a	6,000	n/a	1,500.0	n/a

Notes:

1) Wholesale value base -- computed as revenue divided by 25%.
2) 11 months, plus inventory tax provision effective July, 1986.
3) In the 75th fiscal year, receipts attributable to the tax were distributed to the state operating reserve fund and receipts attributable to penalties and interest were distributed to the General Fund.
4) Estimate Error = actual less estimated, as percent of actual.

75th Fiscal Year (1986-87) Estimate (October, December 1986):

The monthly receipts attributable to the tobacco products tax were expected to continue at levels seen during the first five months of the tax (August through December, 1986). No major changes in volume or price levels were expected. Some downside risk could be associated with sales by Indian reservation smokeshops, although it is difficult to project exactly when reservation sellers will establish ordering from out-of-state supplies, or when tobacco users will discover the possible price differential.

July 1986:	$ 0.0	(one month collection lag for new tax)
Aug. 1986:	$ 143.6	(includes existing inventories)
Sept. 1986:	$ 122.8	
Oct. 1986:	$ 123.3	
Nov. 1986:	$ 113.0	(some receipts shifted into December)
Dec. 1986:	$ 146.8	

The December, 1986 estimate provided to the L.F.C. assumed $123,000 per month for the ten months following August:

143.6 + ($123.0 x 10) = $1,373.6 thousand; rounded to $1,400 thousand.

The significant increase during the second half of the year was assumed to result from better taxpayer awareness and compliance. The increased amounts were not identified as payments on assessments or payments for past taxes due, but this could have been the case. In any event, the quarterly pattern of revenues during the 75th fiscal year is not expected to continue in future years.

76th Fiscal Year (1987-88) Estimate (October, December, 1987)

The prior "eighteen month estimate" of $1,300 thousand had been based on the $123 per month assumption discussed above and had assumed that Indian reservation sellers might likely establish a noticeable share of the tobacco products market. The "six month estimate" (December, 1987) significantly increased estimated General Fund revenue due to the stronger second half of FY 75 and continued strength in the first half of FY 76. While the second quarter of FY76 saw some weakening of receipts, there is no evidence that Indian reservation sellers are increasing their market share. The apparent absence of

this affect may be due to the nature of non-cigarette products -- with relatively rapid product spoilage for all products and more substantial product differentiation for cigars, making the consumer less likely to adjust purchasing habits. The 76th fiscal year estimate assumed that the pattern in the first half of the year would continue in the second half at about $133 thousand per month.

State General Fund Quarterly and Fiscal Year Revenues:

76.1	$ 500	thousand
76.2	300	thousand
76.3	400	thousand
76.4	400	thousand
FY76 Total	$1,600	thousand

77th Fiscal Year (1988-89) Estimate (October, December, 1987)

The fiscal year estimate of $1,500 is considered somewhat conservative and could likely be revised upward by 5% to 10%, depending on the pattern of receipts over the next few quarters. Moderate price increases should exert some upward pressures, however, the downward pressures associated with popular anti-smoking sentiment (particularly for cigar smoking), and a possible increased share of market for indian reservation sellers warrants a conservative estimate at this time.

Quarterly State General Fund and Fiscal Year Revenues:

77.1	$ 500	thousand
77.2	300	thousand
77.3	300	thousand
77.4	400	thousand
FY 77 Total	$1,500	thousand

4. LIQUOR EXCISE TAX

DESCRIPTION

The liquor excise tax is imposed on any wholesaler who sells or distributes alcoholic beverages on which this tax has not been paid (7-17-5). The tax is a unit tax (on volume rather than value) and is imposed at four different rates for the four defined categories of alcoholic beverages, as follows:

A. on spirituous liquors, $1.04 per liter,

B. on beer, $0.18 per gallon,

C. on wine, $0.25 per liter,

D. on wine, produced in New Mexico from at least 50% New Mexico grown fruit; a variable, time-phased tax rate as follows:

July, 1987 through June, 1990:	$0.01	$0.05
July, 1990 through June, 1992:	$0.05	$0.10
July, 1992 through June, 1994:	$0.10	$0.20
July, 1994 and after:	$0.25	$0.25

In computing this tax, deductions are allowed for alcoholic beverages sold or shipped to persons in another state (7-17-6), and an exemption is allowed for alcoholic beverages sold to or by any instrumentality of the armed forces of the United States engaged in resale activity (7-17-19) (Prior to July, 1985, only beer was exempt). The tax must be paid on or before the twenty-fifth day of the month following the month of sale by the wholesaler (7-17-10). A refund or credit is allowed for any tax paid on alcoholic beverages which were subsequently destroyed or found to be spoiled or damaged (7-17-11). The tax is

administered by the Revenue Processing Division of the Taxation and Revenue Department.

The net receipts attributable to the liquor excise tax are distributed monthly to the Community Alcoholism Treatment and Detoxification (CATD) Fund, administered by the Health and Environment Department, and to the State General Fund. The CATD Fund receives 52%, and the General Fund receives 48% of the net receipts.

HISTORY

Prior to May, 1986, revenues from the liquor excise tax were distributed in accordance with the following schedule:

	Distribution per unit to:		
	General Fund	CATD Fund	Total
Beer (per gallon)	$0.09	$0.09	$0.18
Wine (per liter)	$0.13	$0.12	$0.25
Spirits (per liter)	$0.53	$0.51	$1.04

Prior to July 1, 1984, the taxable event for the liquor excise tax was the purchase of alcoholic beverages by a wholesaler. The taxable event was changed effective July 1, 1984 to be the sale or distribution of alcoholic beverages by a wholesaler. The change was designed to keep liquor rectifiers from escaping a portion of the tax.

Prior to July 1, 1983, the rates under the liquor excise tax rate were approximately one-half of the current rates and an additional tax, the "wholesalers tax", was imposed on all wholesalers of alcoholic beverages. The wholesalers tax was an excise tax of 4.25% of the gross receipts attributable to alcoholic beverage sales. It included a deduction for amounts written-off as uncollectible debts or sales to other wholesalers. Revenues from the wholesalers tax were

distributed entirely to the State General Fund, while revenues from the liquor excise tax were distributed entirely to the Community Alcoholism Treatment and Detoxification (CATD) Fund, administered by the Health and Environment Department. The wholesalers tax was repealed at the end of the 71st fiscal year (1982-83), and the liquor excise tax rates were increased sufficiently to raise the same amount of revenue.

DATA SOURCES

All wholesalers are required to report volumes of alcoholic beverages which were distributed or sold on a monthly basis. Report forms LIQ-1A for beer, LIQ-1B for spirits, and LIQ-1C for wine specify volume and inventory amounts, form LIQ-2A details any credits or exemptions claimed, and report form LIQ-2 recaps the volumes and specifies the taxes due. Monthly reports for the approximately thirty-four distributors and eleven winers/growers in New Mexico are reviewed manually by Special Tax Programs Section, and a summary "Alcohol Beverage Excise Tax Statistical Report" (LIQ-3) is prepared. Of the twenty-four registered winers/growers, only eleven reported sales on a regular basis during the latter half of 1987.

From the summary LIQ-3 reports, Tax Research maintains and monitors a monthly history of the following basic statewide numbers, by beverage type, for use in revenue estimating:

- Collections
- Sales Volume
- Military Sales
- Deductions/Exemptions
- Beginning and Ending Inventories.

METHODOLOGY

Tax revenues from alcoholic beverages are estimated by employing the existing long term trend of the consumption of alcoholic beverages (by type: beer, wine, and spirituous liquor) and applying the current tax rate to the estimated volume of the relevant type of liquor consumed. It must be noted that discretionary judgement influenced by the feel for the general conditions of the economy reflected in the economic assumptions plays an important role in adjusting the historical data and hence the estimated tax revenues.

I. Consumption Volume Estimate

II. Revenue Estimate (Distribution Methodology)

III. Summary of Procedures

IV. Revenue Estimates: 73rd through 77th Fiscal Years

I. Consumption Volume Estimate

The historical consumption series from the LIQ-3 "Alcohol Beverage Excise Tax Statistical Report" is currently evaluated through simple year-to-year percentage changes (in the range of +5% to -10% generally, although the mid-1970's showed extremes of +17% and -10%). The historic percentage share of a year attributable to individual months and quarters is also calculated. Both the annual totals and monthly and quarterly totals by type of beverage are reviewed for applicability to the estimating process, since numerous changes in tax rates and administrative procedures in recent years have distorted many of the numbers (e.g., increased purchases just prior to tax rate changes at both the state and federal levels).

Media and trade journals are surveyed to get a feeling for the strength and trends in the liquor industry, upcoming tax changes or price expectations, and any obvious social or

legal trends (such as the recently expanded denunciation of, and legal penalties for, intoxicated motor vehicle operators). These factors are then combined with the probable trend indicated by the historical consumption numbers for New Mexico, to derive a probable average rate of change in volumes for the coming year. This rate is then applied to the most recent year's actual data to obtain the future year's volume estimate.

Major changes in prices or rates of taxation are generally adjusted for in a separate analysis, when those changes are discrete and quantifiable -- for example the September 30, 1985 increase in the federal tax on spirits from $10.50 to $12.50 per gallon (see the 74th Fiscal Year Estimate below).

II. Revenue Estimates

The consumption volume estimate for each type of alcoholic beverage (beer, wine, and spirits) is first multiplied by the tax rate(s) in effect over the period to determine gross taxes. Deductions and exemptions are already excluded from the historical volume series, and so need not be deducted. The General Fund portion and the C.A.T.D. Fund portion are multiplied by the estimated net receipts for the year and for each quarterly period to determine the estimated revenues for each period for each fund.

III. Summary of Procedures

- o estimate general trend of changes in alcohol consumption by type of beverage.
- o calculate base volume estimate = most recent yearly volume x projected general trend of changes.
- o estimate effects on consumption by type of beverage due to specific price, tax, or other changes, and apply to base volume estimate.
- o calculate the tax due to each fund, given the estimated annual and quarterly net receipts.
- o estimate effect of special situations which could effect the timing or amount of revenues (for example, the July 1, 1984 inventory tax credit).
- o round the estimates for publication.

REVENUE ESTIMATES: 73rd through 77th Fiscal Year

	Beer Volume (000 Gallons)		Wine Volume (000 Liters)		Spirits Volume (000 Liters)	
	Actual	Estimated	Actual	Estimated	Actual	Estimated
FY 73*	40,800	41,000	10,500	10,000	8,100	8,300
FY 74	40,600	41,000	11,118	11,500	7,358	7,485
FY 75	39,734	40,000	11,511	11,900	7,144	6,650
FY 76	n/a	39,500	n/a	11,600	n/a	6,900
FY 77	n/a	n/a	n/a	n/a	n/a	n/a

	Net Receipts ($000)		General Fund ($000)		CATD Fund ($000)		Net Receipts Estimate
	Actual	Estimated	Actual	Estimated	Actual	Estimated	Error**
FY 73	15,692	15,800	6,596	6,700	9,096	9,100	-0.7%***
FY 74	17,759	18,000	8,929	9,100	8,831	8,900	-1.4%****
FY 75	17,480	17,103	8,390	8,210	9,090	8,893	+2.2%
FY 76	n/a	17,100	n/a	8,200	n/a	8,900	n/a
FY 77	n/a	17,100	n/a	8,200	n/a	8,900	n/a

* Actual Volumes for 73rd fiscal year are approximate taxable volumes, before removal of credited volumes ("credit for prior law taxes paid").

** Estimate error computed as: Actual less Estimated, as percent of Actual.

*** 73rd fiscal year error affected the General Fund rather than the CATD fund, through operation of the "credit for prior law taxes" which was the major source of the estimate error.

**** 74th fiscal year error affected the General Fund more than the CATD fund, due to the distribution change effective for May and June, 1986. The estimates shown are not revised for legislative changes.

Current Trends

A slowly declining trend is foreseen for Liquor Excise Tax receipts, based primarily on the well established decline in consumption of spirituous liquors. Beer consumption has remained relatively unchanged, and the industry consensus views the market as saturated. Wine sales show the only expanding component of liquor consumption, supporting the widely held conception of a shift in consumer preferences toward wine goods.

The recently broadened exemption from state liquor taxes for sales to or by military entities may have further weakened the state's revenues from the liquor excise tax. Popular concern about alcoholism and drunk drivers should contribute to the shift in preference away from spirituous liquor.

73rd Fiscal Year (1984-85) Estimate (December, 1984)

Net receipts came in approximately $108,000 less than expected (estimate error = -0.7%) in the 73rd fiscal year, with General Fund distributions under by approximately the same amount (estimate error = -1.6%). Distributions to the CATD fund were on target. Some increase in the amount of "credit for prior law taxes paid", unexpectedly processed after the final revenue estimates were issued, was responsible for the General Fund shortfall. Wine sales were quite a bit stronger than expected, but were offset by weaker than expected sales of spirituous liquors. The weakness in spirits also contributed to a longer-than-expected period of using up the credits for prior taxes paid.

74th Fiscal Year (1985-86) Estimate (December, 1985)

Actual 74th fiscal year net receipts amounted to $17,759 thousand (computed estimate error = -1.4%). Improper estimate of the impact of federal tax changes may have contributed to some of the error, although it is difficult to separate that effect from other trends contributing to the surprising weakness in spirituous liquor.

The actual receipts to the CATD fund were quite close to the estimate, and receipts to the General Fund were considerably below the estimate due to the change in distribution of receipts which went into effect for May and June, 1986 (the estimate was not revised to account for the change in law).

75th Fiscal Year (1986-87) Estimate (December, 1986)

	Prior Year			Percent Change		FY 75			
Beer	40,600	gal.	x	0.985	=	40,000	@ $0.18	= $ 7,200	thousand
Wine	11,118	liters	x	1.07	=	11,900	@ $0.25	= $ 2,975	thousand
Spirits	7,358	liters	x	0.90	=	6,650	@ $1.04	= $ 6,916	thousand
								$ 17,091	thousand

General Fund at 48% = $8,185 thousand

CATD Fund at 52% = $8,865 thousand

Note: Military exemption already removed from prior fiscal year taxable volumes.

The estimates of percentage changes in taxable volumes were based on long run expected trends (beer at 1.00, wine at 1.05, spirits at 0.95), further adjusted after review of weak first quarter volumes. No specific distortion or "flukes" were identified in the first quarter weakness, and it was expected that this weakness would continue. Lower personal income and population growth, social and institutional changes (disapproval of heavy alcohol usage), and perhaps the oil and gas production weakness, were seen as factors contributing to lessened volumes.

The 2.2% underestimate for the 75th fiscal year resulted from an overestimate of current trends and concern over the surprising weakness in spirituous liquor during the prior year and first quarter of the current year. Wine sales grew at 3.5% rather than the estimated 7%, and spirituous liquor declined by only 2.9%. The slowing of the rate of decline in spirituous liquor is quite notable since this has been the major cause of the recent trend of revenue decline.

76th Fiscal Year (1987-88) Estimate (December, 1987)

A return to more usual historic trends is expected, with growth in wine slowing and the decline in spirituous liquor moderating. The relatively volatile changes of the last five years have probably stabilized, but a downward trend for spirituous liquor has been retained in an attempt to avoid overreliance on the single prior year trend.

	Prior Year		Percent Change		FY 76			
Beer	39,734	x	0.995	=	39,535	@ $0.18	= $ 7,116	thousand
Wine	11,511	x	1.012	=	11,645	@ $0.25	= $ 2,911	thousand
Spirits	7,144	x	0.960	=	6,860	@ $1.04	= $ 7,134	thousand
							$17,161	thousand

	Net Receipts ($000)	48% to General Fund ($000)	52% to CATD Fund ($000)
FY 76 first quarter	$ 4,600	$2,200	$2,400
FY 76 second quarter	4,400	2,100	2,300
FY 76 third quarter	4,000	1,900	2,100
FY 76 fourth quarter	4,100	2,000	2,100
FY 76 Total	$17,100	$8,200	$8,900

77th Fiscal Year (1988-89) Estimate (December ,1987)

A stable, zero-growth outlook has been assumed for the 77th fiscal year. The major risk to this forecast would be a continued downward trend in spirituous liquor as indicated for the 76th fiscal year. Generally, the 76th fiscal year estimate is considered to be moderately conservative, while the 77th fiscal year estimate is somewhat optimistic in holding at the $17,100 thousand level. The range estimate for the 77th fiscal year is $16,800 to $17,100 thousand.

Supplemental Information (December, 1987)

Military Sales	Beer (000 gal)	% *	Wine (000 Liters)	% *	Spirits (000 Liters)	% *
FY 74 (1985-86)	807.4	1.95	234.8	2.07	112.0	1.50
FY 75 (1986-87)	798.9	1.97	322.8	2.73	162.7	2.23
FY 76 (1987-88)	n/a		n/a		n/a	

* percent of all reported sales after other deductions

New Mexico Produced Wine	Wine (000 liters)	% *
FY 75 (1986-87)	n/a**	n/a**
FY 76 (1987-88)	n/a***	1.01***

* Percent of all reported sales after other deductions.
** Not applicable. Special tax rate and separate reporting began in July, 1987.
*** 50.53 thousand liters during first 5 months of 76th FY.

5. PERSONAL INCOME TAX

DESCRIPTION

A tax is imposed on the net income of every resident individual and upon the net income from business, property, or employment in New Mexico of nonresident individuals. The tax also applies to fiduciaries, S corporations, and partnerships. Net income is defined as federal adjusted gross income less a $2,000 personal exemption allowance for each exemption, the greater of the standard deduction amount or federal itemized deductions and amounts nontaxable by the laws or Constitution of this State or of the United States. For tax years 1981 through 1984, a special deduction of $6,000 was allowed for each person 65 years of age or older. Effective for 1985 and 1986 this deduction was allowed on a phased basis by AGI, with the full $6,000 amount allowed for married filing joint returns with AGI of $30,000 or less and singles with AGI of $18,000 or less. The cutoff level was $45,000 for joint returns and $25,500 for single returns. Effective for 1987 and subsequent years, the $6,000 has been increased to $8,000 to compensate the 65 and over taxpayers for the denial due to TRA of the 65 and over personal exemption they formerly enjoyed. This $8,000 deduction is also allowed on a phased basis. Special deductions are also allowed for pension receipts under the New Mexico Public Employees' Retirement Act, the Judicial Retirement Act, and the Educational Retirement Act, and up to $3,000 per year of annuity receipts paid by the United States to a retired civil service employee or to an armed forces retiree or his survivor. In some cases a credit is allowed for tax paid to another state. First-year residents must allocate and apportion their incomes within and without New Mexico, as must non-residents with business income within the state, and certain other resident taxpayers.

For 1987, New Mexico base income will be substantially expanded in conjunction with the implementation of the federal tax reform act. Changes to both federal adjusted gross

income and to federal itemized deductions will automatically be reflected in New Mexico base income. Changes include:

1) Full taxability of unemployment insurance;
2) Denial of $100/$200 dividend deduction;
3) Denial of 60% longterm capital gains deduction;
4) Passive loss limitation;
5) Denial of marriage deduction for two earner families;
6) Reclassification of moving expenses as deduction rather than adjustment;
7) State sales taxes no longer deductible;
8) Phase out of consumer interest deduction;
9) Miscellaneous deductions allowed only if in excess of 2% of AGI;
10) Medical Expenses deductible only in excess of 7.5% of AGI; and
11) Denial of IRA deduction for most taxpayers.

Tax liability is established under a graduated rate table, and separate tables are provided for single individuals, for married individuals filing separately, and for married individuals filing jointly and heads of household.

Three non-refundable credits may be claimed as an offset to tax liability, and unused credit amounts carried forward for up to five taxable years. These are the Solar Capital Investment Credit, which is equal to 5% of costs not to exceed $20,000 for 1985 and effectively repealed for 1986 and subsequent tax years, the Geothermal Capital Investment Credit, which is equal to 20% of costs for 1985 and 1986 and 15% for 1987 not to exceed $60,000, and the Cultural Property Preservation Credit, which is equal to 50% of the cost of rehabilitating or restoring a cultural property listed on the New Mexico register of cultural properties, not to exceed $25,000.

The following refundable tax credits and rebates are administered through the individual income tax program, and they may be claimed by filing an income tax return even if no income tax is due.

Child Day Care Credit.—A credit of 40% of the costs of day care services for eligible dependents is available for low-income working individuals. The maximum credit allowable is $1,200. Amounts allowable under the federal day care credit must be subtracted from the State credit amount.

Food Tax Rebate.—A rebate of up to $45 per exemption (as determined for federal income tax purposes) is available to residents who have been physically present in the State for six months. This rebate is intended to return to taxpayers a portion of the gross receipts taxes paid on food purchases. The rebate is suspended for 1986, 1987 and 1988. Beginning in 1989, the food rebate amount is reinstated and phased out at upper adjusted gross income levels.

Low Income Comprehensive Tax Rebate.—This rebate is intended to return to taxpayers at or below the poverty level a portion of the total State and local taxes paid by them. The rebate amount varies by income level and number of exemptions, ranging from $5 to $375. For 1987 and subsequent years, to compensate for changes due to TRA, taxpayers 65 and over are allowed <u>two</u> extra exemptions in addition to the federal amounts.

Low Income Food and Medical Tax Rebate.--For 1986, 1987 and 1988 tax years the food and medical rebates were suspended and a special low income food and medical payment of up to $52.50 per allowed exemption provided. For 1986, the full amount of $52.50 was allowed. For 1987 and 1988 tax years, the credit is phased down by modified gross

income. The elderly and blind are allowed, for this purpose, one additional exemption in addition to federal amounts. For 1987 the eligibility requirement has also been slightly increased, so that more taxpayers will receive a smaller average amount than for 1986.

Medical Tax Rebate.—A rebate equal to the greater of $7.50 per exemption (as determined for federal income tax purposes) or 4% of expenditures for allowable medical and dental expenses is available to residents who have been physically present in the State for six months. This rebate is intended to return to taxpayers the gross receipts taxes paid on purchases of medical and dental goods and services, whether or not the purchases were reimbursed by insurance. The rebate is suspended for 1986, 1987, 1988. Beginning in 1989, the medical tax rebate is reinstated and phased out at upper income levels. In addition "allowable expenses" are restricted to non-reimbursed expenses.

Property Tax Rebate for Low-Income Persons 65 or Older.—A rebate of up to $250 is available to low income persons 65 or older to partially offset property taxes paid on owned or rented residential property in New Mexico.

Solar and Wind Energy Credit.—A credit is allowed for 25% of the cost of a solar or wind energy system installed in a principal residence or business location in New Mexico. The maximum credit amount is $4,000. The credit expired under previous law on December 31, 1985, but was amended to be extended through 1988 with the maximum amount declining to $2,500 in 1986, $2,000 in 1987 and $1,500 in 1988. In addition, a one year delay in submitting credit claims was provided so that the credit for solar installations made in calendar year 1986 cannot be claimed until filing the 1987 tax year due April, 1988, and the credit for 1987 will be claimed on returns due April, 1989.

Solar Irrigation Tax Credit.—A credit is allowed for 25% of the cost of equipment used as part of a solar energy system for irrigation pumping or stock watering purposes on the taxpayer's real property in New Mexico. The maximum credit amount is $25,000. The credit expires under current law on December 31, 1987.

DATA SOURCES

The computerized PITAEI System contains information from all New Mexico income tax returns. Summary information from these individual records is provided to Tax Research at least twice a year. Information is by taxable year and includes data on income, deductions, exemptions, credits and rebates classified by adjusted gross income and by taxable income categories. Summaries are run for all returns, returns by filing status, returns by county, and returns of persons 65 or older.

Although a number of format changes have been made through the years, the basic PIT statistics are available beginning with the 1973 tax year. However, the numerous federal and state tax law changes, coupled with inconsistent formating and category definitions, have made the statistics virtually unusable as a historical time series. Also, there is considerable "noise" in the statistics from key entry errors, inclusion of returns that are kicked into the error file, inconsistent coding of "adjustments" made by the Department, etc., so caution must be used especially in looking at detailed or specific provisions.

Personal income data, which underlies the PIT estimate, is available from the FOR-UNM model, for recent time periods, or from the August Survey of Current Business. The personal income data series is developed by the U. S. Bureau of Economic Analysis and revisions of current and past data elements are both fairly frequent and significant.

METHODOLOGY

The PIT estimates are a combination of two distinct sets of estimates - tax liability and cash flow.

Tax Liability

Gross tax liability is generally derived by applying a growth factor to the previous year's liability, adjusted for rate and base changes. This growth factor is the projected change in personal income times a personal income elasticity factor. Unfortunately, numerous changes in the definition of both adjusted gross income and taxable income during the past few years due to federal and state law changes and a shift in the distribution of returns within the tax brackets have significantly affected the income elasticity of the tax. Some attempt is made to explicitly adjust for these taxable income base changes, although data on these deductions and exclusions is often not available at all or is not available on a timely or state-specific basis. An income elasticity factor of between 1.5 and 1.8 was used for the previous rate structure adopted in 1978. Under the new 1986 rate structure, a 1.45 elasticity is assumed.

The "appropriate" personal income measure to use in deriving tax liability is another consideration. Theoretically the BEA personal income numbers should be adjusted to more closely reflect reportable income (i.e., adjusted gross income) for tax purposes. Because of the volatile nature of farm income and the loose relationship it seems to bear to taxable income of farmers (given their inventory adjustments, loss carryforwards and carrybacks, etc.), the first adjustment is usually to exclude farm proprietors income. Exclusions of transfer payments (which are not taxable) and the addition of personal contributions for social insurance (which are taxable) are also considered. Also, the BEA personal income concept does not include realized capital gains but does include imputed

interest and, to the extent that these behave differently than other income sources, the personal income numbers will not adequately reflect taxable income changes. Federal tax changes affecting adjusted gross income, like IRA exclusions, have also changed the relationship between personal income and AGI.

The gross tax liability estimate derived from the personal income and elasticity calculation is explicitly adjusted to reflect new or revised deductions or exclusions, such as the federal marriage penalty deduction, the State's deduction for persons 65 or older, etc.

Net tax liability is liability after rebates and credits and is derived by subtracting from adjusted gross liability the total estimated amount of each tax rebate and credit program. The estimates for these rebates and credits are generally derived using trend analysis, although the underlying determinants for each program are also looked at.

Also, some determination must be made of the percentage of gross tax liability and of rebates and credits that will be reported within the fiscal year period. This percentage is not the same for these two pieces since more of the late-filed returns are high income returns. The percent of late filed returns seems to be increasing, in line with national trends. Shifts in the timing can cause significant estimating errors.

Finally, tax liability under the fiduciary income tax program is added since these receipts are included in the personal income tax estimate. Fiduciary income tax receipts are fairly small ($1.4 million for FY '86-'87) and stable and this source is estimated primarily by adjusting the previous year's amount for rate changes, if applicable. Some increase in this source can be expected due to TRA.

Cash Flow

The following cash flow factors are estimated to arrive at the fiscal year estimate for net PIT transfers to the General Fund:

Calendar year withholding receipts for the tax year being estimated are projected. Based on historical data, the percent of actual withholding receipts which taxpayers claim on their returns is estimated; this claimed withholding is subtracted from liability to derive "net" final settlements. Notwithstanding the effect of revised withholding tables, monthly withholding receipts are the best current indicator of the reliability of the PIT estimates.

Fiscal year withholding receipts are also estimated and added to the net PIT calculation. When no changes in withholding rates have occurred, the difference between fiscal year withholding and calendar year withholding reflects income growth and positively affects cash flow. Changes in withholding tables can cause substantial cash flow effects (negative or positive) due to the difference in timing between the accrual of tax liability and the April 15 cash settlements.

Recently, tentative payment amounts for returns with no reported liability, and returns with liability offset by previous tentative payments, have been broken out in the PIT statistics. A separate accounting for the effect of these returns must be made.

Typically, a small but growing amount of revenue is collected each fiscal year which represents previous years' net liabilities. This amount is estimated and added to the fiscal year total. Federal policies on automatic extensions, the interest rate for late payments and processing schedules within the Department are the most significant factors affecting

this estimate. A recent federal report indicated that a growing percent of returns are filed late - in 1980, 96% of returns were filed by April 15, whereas in 1984, this had dropped to 92%.

Finally, changes in the balance in the PIT suspense fund at the close of the fiscal year contribute to the cash flow for the fiscal year. Department policies with respect to PIT suspense balances are reviewed and known plans for increasing or decreasing the ending balance for the fiscal year are incorporated into the estimate. Generally changes in the PIT suspense fund balance are not based on "known plans" but reflect processing considerations that arise late in the year.

Reconciliation of 75th FY PIT Revised Estimate/Actual

	December Estimate	FY Actual
Gross Liability	206.3	214.5
Plus: Fed. TRA (est.)	2.5	10.0
Less: Other Credits	2.0	1.5
Adjusted Liability	**206.8**	**223.0**
Less: Rebates & Credits		
Food		
Medical		
LICTR	11.0	9.8
Low Inc. Food & Med.	14.0	14.8
Property	2.5	2.9
Day Care	.2	.3
Solar	0.0	0.0
Solar Irrigation	.1	0.0
Total Rebates & Credits	**27.8**	**27.8**
CY W.H. Total	197.4	201.3
Less: CY WH Claimed	173.7	177.9
Applied tentatives	12.0	17.7
Plus: FY WH	218.0	223.7
Tentative Payment	15.5	25.5
Prior Year*	3.5	3.3
Fiduciary	1.4	1.4
Change in PIT Sus.		(1.0)
Plus: Unexplained	-	(11.4)
Net to General Fund	**231.7**	**241.1**

		1985 as of 7-15-86	1985 as of 11/19/87	Change
*Prior Year:	Adj. Liability	165.3	197.1	+31.8
	Withholding	136.0	150.9	-14.9
	Tentatives			
	Claimed	9.1	16.8	-7.7
	Rebates	103.6	111.7	-8.1
	FY Tentatives	14.9	17.1	+2.2
	Net Change			**3.3**

The FY actual is higher in almost all respects than projected. The number of returns received as of June 30 seemed to be significantly lower than the previous year with the largest drop in "out-of-state" filers. Most of the remaining decline can be attributed to the alteration in standard deduction and personal exemption amounts. Withholding

collections, however, held up to estimates implying the differences was not in wage and salary income. The amount of withholding "unclaimed" continues to increase (1983-$4.9 million, 1984-$3.7 million, 1985-$4.7 million and 1986-$13.0 million as of 12/3/87). This discrepancy is discussed later. The continued shift to late-filed payments plus the greater tentatives will hopefully result in greater prior year amounts in the 76th FY. It also seems that the calculation of prior year payments is too low. Prior year amended returns, audits, etc. should contribute some cash as the relative level of personal income taxes grows. If the change in PIT suspense from this activity could be determined, it might explain the difference. The "unexplained" category has become worrisomely large. As much as $7.2 million of the difference seems to be refunds and rebates claimed from years prior to 1985. This however, leaves $4.2 million in negative tentatives and final settlements unexplained. The 1986 reconciliation "unexplained" amount was $4.9 million, suggesting that the precise phase offset between money received (and reported on RS-1) and returns processed and reported on the PITAEI statistics are causing a problem. As of 7/03/87 approximately 7,444 returns were in inventory or in the edit error file and 2,212 refunds were awaiting processing. The comparable numbers for 1985, tax year were 27,738 and 4,145. More work on this effect is needed.

Reconciliation of Basic Assumptions For PIT

Adjusted Non-farm Personal Income Change	Estimate	Actual
1983/1982	6.1	6.25
1984/1983	9.2	9.9
1985/1984	6.1	6.4
1986/1985	3.2	2.7

Number of Returns

Tax Year:	1983	1984	1985	1986	
6/30	597.0*	596.1	598.9**	594.5	
Final	601.9	627.6	646.5	619.2	(Dec.)
%	99.2	95.0	92.6	97.1	

* estimated at 30,000 more than reports due to key punch backlog.
** probably 20,000 more reports awaiting processing.

Profile of Tax Returns 1984-1986

	Final 1984		Final 1985		December 1986	
	No.	%Change	No.	%Change	No.	% Change
Total Returns, AGI	627,584	4.2	646,515	3.0	619,247	(4.2)
Joint & Head of House.	383,538	2.8	393,408	2.5	379,431	(3.6)
Single	239,088	6.6	248,312	3.9	235,264	(5.3)
65 or Over	98,023	5.7	101,726	3.8	97,165	(4.5)
LICTR	100,454	(5.3)	101,530	1.1	108,851	7.2

Estimates for the 76th and 77th Fiscal Years - December, 1987 (tax year in parenthesis)

	75th (1986) (Actual)	76th (1987) (Estimate)	77th (1988) (Estimate)
Fiscal Year Combined Liability*	222.3	220.9	280.9
Plus: Federal Tax Reform	10.0	40.0	4.6
Adjusted liability	232.3	260.9	285.5
Less: Non-refundable credits	1.5	1.5	1.4
Less: Refundable credits and rebates			
Food-total		-	
Medical-total		-	
LICTR-regular	9.8	10.0	9.6
LICTR-food and medical	14.8	16.5	17.0
Property	2.9	2.9	2.9
Day Care	.3	.3	.3
Solar	0.0	2.5	2.4
Solar irrigation	0.0	.1	.1
Total rebates and credits	27.8	32.3	32.3
Net Liability	203.0	227.1	251.8
Less: Claimed Withholding (88% of total)	177.9	203.5	235.2
Less: Claimed Tentatives**	0.0	0.0	0.0
Plus: Prior Year Payments (est.)***	(8.1)	4.0	2.5
Plus: Fiscal Year Withholding	223.7	249.8	270.4
Plus: Fiduciary	1.4	1.5	1.5
Plus: Change in PIT suspense	(1.0)	-	-
Net PIT to General Fund	241.1	278.9	291.0
Non-Recurring****			45.0
		246.0	
Reported to LFC as *****		280.0	247.0

* Includes established liability from filed returns plus unclaimed tentative payments. This is a slight change from previous practice, where total tentative payments were shown here and claimed tentatives below. This new practice replicates the methodology of the base estimate.

** See change at *.

*** This is not a verifiable number under the current accounting system. It is derived as a residual. Approximately $4 million in extra accounts receivable will be collected in 1987-88 from the 1986 tax year. However, the 1986 trend to file for old refunds and rebates will continue.

**** The amount of the estimate for suspension of rebates is to be considered as non-recurring revenue.

***** The discrepancy arises from small modifications in several components of this estimate after the time of presentation to LFC.

Details of Estimates

Gross Liability

FOR-UNM Personal Income Estimates: the current BEA revisions show 1986 total personal income at 16.894 ($billion) up 3.9% from the revised 1985 amount. This growth parallels the growth in wage and salary disbursements of 2.8%, with much stronger growth in proprietor's income (9%) and slower growth in dividends, interest and rents (-.8%). The latest revisions sharply increase this latter component. For 1987 and 1988, a significant improvement in the growth of all of these income components is projected, with dividends, interest and rent income showing the greatest relative strengthening (+7.4% for 1988).

September, 1987 FOR-UNM

	1985	1986	1987 est	1988 est	1989 est
Total Personal Income	16.266	16.968	17.465	18.314	19.382
- Farm Proprietors	.181	.181	.281	.298	.296
- Transfer Payments	2.558	2.714	2.826	3.033	3.258
+ NM Soc. Sec. minus Res Adj	.706	.733	.738	.790	.832
	14.233	14.806	15.091	15.773	16.660
% Change From Previous Year		4.0%	1.9%	4.5%	5.6%

Beginning in 1986, the New Mexico tax rate structure was substantially changed so that there is no history of its actual performance. However, in order to assess its likely performance, both the 1984 and 1985 tax files were rerun using the 1986 tax structure. These files were then adjusted to reflect the delayed payment of taxes for 1984 due to amnesty and the "normal" delay for 1985 due to extensions. Unfortunately the magnitude of these adjustments significantly influences the elasticity factor, providing little confidence in the derived number. Until better information is available, we assume a 1.45 elasticity.

Derivation of Gross Liability - use "base" for 1986 of 236.7 which is September actual of 238.7 plus $5 million in additional late payments plus $3 million in unclaimed tentatives less $10 million from capital gains realization. A 94% fiscal year factor is implied from this. This is a strengthening of fiscal year versus calendar year receipts which reverses the trend over the past few years. There was, however, a very large increase in tentative payments paid versus claimed. The reality of high state interest rate on late payments has, presumably, entered the awareness of taxpayers. On the other hand, the massive changes wrought by TRA will probably encourage late filing. Use combined liability plus unclaimed tentatives of 91% on a fiscal year basis for 1987, and 92% for 1988, as confusion over TRA eases.

CURRENT ESTIMATE SUMMARY

1987

Growth in Combined Liability = 1.45 x 1.9 = 2.8

1.028 x (246.7 - 10.0) =	243.3
Plus Tax Reform Tax Act (adjusted)	47.2
Adjusted tax etc.	290.5
Less: Correction to TRA Estimate from Capital Gains Shifting	-3.8
	286.7

Fiscal Year Liability = .91 x 286.7 = 260.9

1988

Growth in Combined Liability = 1.45 x 4.5 = 6.5

1.065 x 286.7 =	305.3
+ 1988 TRA =	5.0
	310.3
.92 x 310.3 =	285.5

Federal Base Changes:

For 1987 and 1988, the federal tax reform changes apply. A separate analysis of these changes (see Tax Research paper #19) estimates the 1987 tax year impact at $48.9 million; 91% of this would be the fiscal year impact. However, legislation passed in 1987 provided some relief to 65 and over taxpayers ($1.6 million on a fiscal year basis, 1.7 for the whole year). One further adjustment is necessary for 1987. Shifting the presumed underestimate of capital gains realization into 1986 in response to TRA affects 1987 capital gains realization estimate. If the 1986 amount was shifted $5 million then this adjustment is $\frac{60}{40}$ x (5.0-2.5) = 3.8 (further reduced by 91% assumed fiscal year factor). The remaining $5 million capital gains effect is assumed to have been one-time sales to create a higher basis, and was not shifted. Adjusting the estimate by these amounts gives $40 million for 1987: (48.9 - 17.7 - 3.8) x .91 = $40. Further gains from TRA expected for 1988, consist of approximately $5 million due primarily to phase-in of passive loss and consumer interest limitations.

Non-refundable Credits

There is a subtle difference between non-refundable credits claimed and non-refundable credits allowed.

Non-refundable Credits

	1984	1985	1986
Tax Liability Before Credits	163.3	166.3	224.5
Other State Credit	1.4	1.4	1.8
Solar Capital Investment	.09	.04	.007
Geothermal	.002	.008	.004
Cultural Properties	.010	.09	.175
Tax Liability after credits	162.2	165.3	223.0
Total Credits	1.5	1.6	2.0
Total Allowed Credit	1.1	1.0	1.5

Note: Data refers to Fiscal Year.

Assume 1987 total allowed credit of 1.5 million, and 1988 credit of 1.4 - as taxpayers working out-of-state either become reemployed in New Mexico or permanently emigrate.

Refundable Rebates and Credits

Food Rebate

	No. of Returns (thru June)			Rebate Amount	
	Total	Food	%	Total	Ave.
1979*	515,162	443,726	.861	49,131.1	124.6*
1980*	545,309	470,346	.863	51,507.8	123.20*
1981	565,105	489,182	.866	59,617.3	121.87
1982	571,086	496,145	.869	60,521.4	121.98
1983**	587,374	513,382	.874	62,465.5	121.67
1984	596,129	521,862	.875	62,680.1	120.10
1985	598,887	528,009	.881	63,148.5	119.60
1986 suspended	-	-	-	-	-
1987 suspended	-	-	-	-	-
1988 suspended					

* Adjusted for rate change.

** Estimated at 98.5% of Nov. totals. As of June 30, 1984 a key-entry backlog of approximately 30,000 PIT returns existed, so June 30 statistics are invalid.

Medical-Dental Rebate

	No. of Returns		Rebate Amount	
Final	Per Exemp.	4%	Per Exemp.	4%
1977	332.5	85.2	4,697	3,572
1978	328.7	101.5	4,582	4,483
1979	352.4	107.0	4,825	5,181
1980	361.9	123.6	4,908	6,443
1981*	389.1	109.1	7,902	6,835
1982	389.7	118.9	7,889	8,437
1983	386.4	127.0	7,784	9,821
1984	386.4	145.0	7,750	12,050
1985	394.8	133.3	7,801	11,278
1986 suspended	-	-	-	-
1987 suspended	-	-	-	-
1988 suspended	-	-	-	-

* Increase in per exemption amount from $5 to $7.50

Low Income Food and Medical Rebate

For 1986, all taxpayers eligible for LICTR were allowed $52.50 per exemption for the new rebate.

For 1987, the law has changed to phase out the low income food and medical rebate from $52.50 to $0 at $12,000 MGI for married filing joint and heads of household or at $8,000 MGI for single taxpayers. The 1987 change holds the blind and elderly harmless for TRA change in allowable exemptions.

Low Income Food and Medical Rebate

	No. Returns	Amount ($Millions)	Avg. Amount
1986	107,183	14.8	138.10
1987	145,000	16.5	113.00
1988	150,000	17.0	111.00

* Amount from SB-653 FIR, was 16.4 for 1987, 16.7 for 1988. The slight revisions is due to more recent information.

Low Income Comprehensive Tax Rebate

LICTR	No. of Returns	Amount ($Million)	Avg.
1978	95,865	9.0	93.77
1979	83,167	7.0	84.13
1980	80,158	6.5	80.83
1981*	101,342	10.4	102.47
1982*	103,178	10.5	101.67
1983	105,419	10.4	98.37
1984	98.467	9.8	99.02
1985	98,500	9.8	99.02
1986	107,196	9.9	91.89
1987**	105,000	10.0	95.00
1988	102,000	9.6	94.00

* Major revision of table

** 1987 - Increased number of filers reflects the fact that Schedule PIT/RC must be filed to claim the food and medical rebate.

Property Tax Rebate -

Year	Amount ($Million)
1977	1.14
1978	1.25
1979	1.24
1980	1.26
1981	1.90*
1982	1.99*
1983	2.17
1984	2.22
1985	2.30
1986	2.9
1987	2.9**
1988	2.9**

* revised by 1981 Legislature
** Hold constant for 1987 and 1988. Reappraisal will be done again in 1988.

Child Day Care Credit

	No. of Returns	Gross	Fed. Credit*	State Credit
1981	2260	.780	.352	.428
1982	2058	.733	.403	.328
1983	2750	.980	.500	.480
1984	1930	.673	.446	.226
1985	1840	.676	.437	.238
1986	1860	.709	.433	.275
1987**	1900	.722	.433	.289
1988	1800	.693	.416	.277

* State credit must be reduced by allowable federal child care credit
** 1987-Only one, 93% of 1986 return claims were processed in the fiscal year. Expect this pattern to continue. Federal base changes will result in higher AGI, hence lower federal credit percent (use 24%).

Solar and Wind Energy Credit

	No. of Returns	Amount ($Million)	Average
1975	23	-	-
1976	72	-	-
1977	202	.09	-
1978	303	.15	-
1979	397	.22	-
1980	665	.40	-
1981*	3,373	3.32	984
1982	4,583	4.94	1,077
1983**	5,600	6.42	1,147
1984	7,092	8.73	1,230
1985	8,940	11.0	1,230
1986	suspended for 1 year with delay		
1987***	2,000	2.5	1,250
1988	2,000	2.4	1,200
1989****	2,400	2.6	1,100

* major revision in law
** estimated at 97% of Nov. amounts
*** 1987 estimate based on analysis by Polydyne, Inc. of likely credit claims with no federal credit.
**** 1989 estimate includes likely promotion effects during the final few months of 1987.

Solar Irrigation Credit

Almost all of the old 100% claims have run their course; very few new ones being filed; allow $100,000 per year.

Monthly Amount in $Millions

Withholding Tax

	1985	1986	1987	1988	1989
February	13,235	15,657	19,115**	22,593***	23,151
March	12,940	14,657	18,025	22,507	23,067
April	12,938	13,434	18,245	22,412	22,975
May	11,382	11,259	18,104	20,717	21,480
June	14,052	15,521	19,528	23,328	24,022
July	14,207	14,338	21,304	23,108****	
August	12,354	17,170*	19,008	20,911	
September	12,541	19,135	18,686	21,526	
October	13,229	19,593	19,248	22,245	
November	10,927	17,529	17,848	20,389	
December	14,859	19,912	20,431	23,205	
January	12,995	23,045	21,436	24,301	
Total	155,659	201,250	231,239	267,241	

Withholding Tax Table (Cont.)

Notes:

* New withholding table-average increase of 47% plus W & S growth
** New withholding table = average increase of 36% plus w & s growth
*** New withholding table = one fewer $2,000 exemption per wage earner. Average 12% more withholding above baseline from February, 1988 until June, 1988.
**** Anticipate readjustment of withholding allowances to correct overwithholding. Use 9% over baseline for fiscal year.

Wage and Salary Growth (September, 1987, FOR-UNM)

Quarterly	(PCYA)	Quarterly	(PCYA)	Quarterly	(PCYA)
86_3	2.0	87_3	2.6	88_3	4.2
86_4	1.2	87_4	4.1	88_4	3.9
87_1	.0	88_1	5.5	89_1	4.9
87_2	1.8	88_2	4.3	89_2	5.5

Total Withholding

Calendar Year	Amount ($Millions)	Fiscal Year	Amount ($Millions)
1986	201.3	1987-88	249.8
1987	231.2	1988-89	270.4
1988	267.2		

Claimed withholding - based on recent trends, the withholding claimed on returns processed through June averages approximately 85 to 90% of total calendar year withholding. Assume 88% for both years.

231.2 x .88 = $203.5 million claimed withholding estimate for 1987 calendar year.

267.2 x .88 = $235.2 million claimed withholding estimate for 1988 calendar year.

75th FY Quarterlies, Estimate vs. Actual

75th FY Estimate	Q_1	Q_2	Q_3	Q_4	Total
Withholding	50,645	57,240	58,245	51,895	218,000
Final Settlements	4,730	18,250	10,130	41,065	74,200
Refunds, TAA*	-0-	(465)	(400)	(335)	(1,200)
To PIT Suspense	(13,500)	(15,000)	(31,500)	0	(60,000)
From PIT Suspense					
Net Refunds	3,710	1,290	7,000	12,000	24,000
Rebates & Transfers**	5,860	1,710	25,000	3,430	36,000
Total	9,570	3,000	32,000	15,430	60,000
To General Fund	**41,875**	**60,025**	**36,475**	**92,625**	**231,000**
Withholding	50,643	57,034	60,185	55,877	223,739
Final Settlements	4,399	14,665	16,655	61,272	96,992
TAA[2] (376)	(15,000)	(249)	(935)	(2,021)	
To PIT Suspense	(13,465)	(15,000)	(41,500)	(7,677)	(77,642)***
From PIT Suspense					
Refunds	3,708	1,519	12,841	23,482	41,550
Rebates & Transfers	5,859	1,359	17,054	11,840	36,112
Total	9,603	2,878	29,895	35,322	77,662
To General Fund	**41,201**	**56,237**	**35,091**	**108,538**	**241,067**

76th FY Quarterlies, December, 1987

75th FY Estimate	Q_1	Q_2	Q_3	Q_4	Total
Withholding	59,000	57,800	65,500	65,100	247,400
Final Settlements	6,220	14,700	17,940	67,340	106,200
Fiduciary Net	150	250	130	870	1,400
Refunds, TAA*	(280)	(350)	(170)	(700)	(1,500)
Net Receipts	65,090	72,400	84,400	134,010	355,900
To PIT Suspense	(2,300)	(20,000)	(54,700)	(0)	(77,000)***
From PIT Suspense					
Refunds	4,670	1,690	13,560	24,080	44,000
Rebate & Transfers**	790	680	15,600	15,930	33,000
Total	5,460	2,370	29,160	40,010	77,000
To General Fund	62,790	52,400	29,700	134,010	278,900

* Net: these are basically prior year return withholding refunds: also includes warrant cancellations and returned checks as well as FID refunds.

** Only includes rebates where a warrant is cut; other rebates are reflected as reduced final settlements. Includes previous tax year claims.

*** Includes (1,000) increase in suspense fund balance and 1,020 decrease due to warrant cancellations.

Personal Income Tax: Risks to the Forecast

Because of a multitude of recent changes in both federal and state tax laws, there is greater uncertainty than ever before in the estimation of personal income tax revenues for the 76th and 77th and to a lesser extent, the 78th fiscal years. These changes and uncertainties are as follows:

1) Due to change in rates, brackets, personal exemptions and zero brackets amounts effective for the 1986 tax year and the suspension of the rebates, the average tax rate on gross liability increased from 2.4% to 4.2%, and on net liability after rebates from 1.0% to 3.7%. Approximately 63,000 taxpayers were relieved of tax liability. However, the relationship of change in revenue driven by change in personal income is now substantially unknown. Extensive modeling on the base of the 1986 filed tax returns will be done as soon as possible. This will allow some measure of confidence in the use of an assumed elasticity coefficient.

2) The federal tax reform act thoroughly overhauled the tax base and tax burden of the federal structure and by extension, the state structure. People alter their economic behavior in response to changes in tax law. For instance, there is substantial anecdotal evidence that taxpayers realized capital gains in late 1986 to take advantage of the low effective tax rates on capital gains. There is also statistical evidence that deductions, including that for state income tax paid, were accelerated into 1986. Forecasting risks stem come about from the sparse income and deduction data an unknown behavioral response, and state legislative action, which provided some relief for 65 and over or blind taxpayers and LICTR claimants.

3) In response to TRA and the high (15%) state interest rate on underpayments, more money than ever before was received as "tentative payments". $25.5 million was received for 1986 tax year returns, $17.0 for 1985 and $12.2 for 1984. There is significant debate on how to treat these tentative payments: i.e., which portion to apply to creating an estimating base ($17.7 million of the 25.5 was claimed within the fiscal year, leaving $7.8 million to cross the fiscal year.)

4) Changes in the W-4 methodology were sparked by TRA and by long standing inaccuracy in the treatment of two-wage taxpayer groups. Basically, the new form provided a "special allowance" for one-wage single or married filers, and forced a movement away from the traditional "rules of thumb" for determining tax liability. Taxpayers were also expected to anticipate the effect of TRA on the tax deductions and gross income. Statistically, taxpayers were somewhat conservative in their response. The net effect of W-4 changes is an increase in withholding revenue of about $2.5 million. This increase has been treated as a change due to the January, 1987 withholding table change.

5) Changes in withholding tables and withholding table methodology have caused chaos in revenue estimation. The tables were changed in July, 1986, in July, 1987 and will be changed again in January, 1988. An assumed 40% increase (plus growth in wages and salaries) from the July changes came in at 49%. The assumed 24% increase in withholding revenue for the January, 1987 changes was also under estimated (33%). We have proposed and implemented a change to align with the federal withholding methodology. This realignment will be published in the tables for January, 1988. In the absence of changes in claimed withholding allowances, every wage earner will be taxed on $1,950 more wage

and salary income (except, of course, those claiming zero allowances). After final filing in 1988 of 1987 returns, people will undoubtedly alter their claimed withholding in response to the net effect of TRA on each individual's tax situation. This methodology change will generate an estimated 14% more revenues unless major revision of W-4 allowances occurs. To account for the revisions, a 9% figure is used in the estimate.

6) Suspension of the rebates for most taxpayers has caused an interesting increase in the number of low-income rebate claims. The average claim is less, however.

7) Similarly, in response to statewide revaluation, the number and dollars claimed under the property tax rebate increased.

8) An unknown number and dollar amount of solar rebate claims will be presented. The loss of the federal credit devastated the marketing of active solar systems and the delay in making claims will have an unknown effect on the number and amount of claims.

Some of this uncertainty will be addressed with more modeling work and review of the state and federal tax information tapes, but large elements of uncertainty will remain.

These new uncertainties are added to the uncertainty that has always existed: how will the state economy perform; what relationship will withholding and final settlements bear to total personal income; how will revisions in the data base affect the methodology of prediction and estimation.

In expanding from a $50 million tax program to a $300 million program there are likely to be many failures in accurately understanding the way the parts create a whole.

We hope that a few years without major changes will allow us the luxury of applying more statistical tools to the estimation of this increasingly significant and complex revenue source.

6. CORPORATE INCOME TAX

DESCRIPTION

The corporate income tax applies to all domestic and foreign corporations (except insurance companies which pay a premium tax, and S corporations which are subject to individual income tax) which have income from activities or sources in New Mexico and which are taxable under federal law. New Mexico taxable income is based generally on federal taxable income with special deductions for amounts nontaxable income under the federal or State constitution and laws. For taxable years beginning prior to January, 1, 1986 the tax rate is 4.8% of the first $1 million of taxable income, 6% of the second $1 million and 7.2% of excess over $2 million. For tax years beginning on or after January 1, 1986, the rate is 4.8% on the first $500,000 of taxable income, 6.4% on the next $500,000 and 7.6% on income over $1 million. Subject to certain restrictions, corporations may elect to report their income using one of the following reporting methods: (1) separate corporate entity; (2) separate accounting; (3) combination of domestic unitary corporations; or (4) federal consolidated group.

Corporate income tax returns are due 75 days after the close of the corporation's fiscal year, with up to 6 months of federal extensions automatically accepted. A 15% interest rate is applied to late filed payments (set in the Tax Administration Act), so many corporations file a tentative return and payment on the due date and then file their final return some months later with a request for refund or final tax payment. Beginning with tax years starting on or after January 1, 1986 a corporation with estimated tax liability of $5,000 or more must make quarterly estimated tax payments equal to 80% of its final liability (or 100% of its previous year's liability). Underpayments of estimated tax are subject to penalty and interest.

Corporate taxpayers may claim the following credits against New Mexico income tax liability:

Corporate Child Care Credit.—Effective for taxable years beginning on or after January 1, 1984, a credit is allowed for certain child care services provided by or paid for by a corporation for employees' children. The credit amount is 30% of eligible costs, up to $30,000; unused amounts may be carried forward for three years.

Geothermal Capital Investment Credit.—A credit of up to $60,000 is available for the cost of tangible personal property used to supply geothermal energy for commercial or private use. The credit amount allowed is 25% of the cost of the property placed in service in 1983 and 1984, and 20% of the cost of such property in 1985 and 1986. Thereafter the credit declines annually by 5% until it is phased out in 1990. Unused credit amounts may be carried forward for up to five consecutive years.

Solar and Wind Energy Credit.—A credit is allowed for 25% of the installed cost of qualified solar or wind energy systems, up to a maximum of $4,000, used in the taxpayer's business location. Unused credit amounts may be carried forward for three consecutive years. The credit was to expire on December 31, 1985, but was extended on a phased out basis until 1989. However a credit for 1986 solar installations cannot be claimed until 1987.

Solar Capital Investment Credit.—Manufacturers of solar equipment in New Mexico can claim a tax credit of up to $20,000 for an investment in productive capital used exclusively for the manufacture of solar equipment. The tax credit is calculated based on a percentage of the total investment; for 1983, the percentage is 15%; for 1984, 10%; and for 1985, 5%. Unused credit amounts may be carried forward for up to five years.

DATA SOURCES

The Corporate Income Tax is manually processed by the Corporate Income Tax Unit of the Santa Fe District Office. Each month a computer listing of tax payments is produced which shows the corporate name, I.D. number, federal taxable income, New Mexico taxable income, filing period and amount of tax payment. This listing is available only to TRD employees due to confidentiality provisions. In addition a report is generated quarterly listing all estimated tax payments received. Using these printouts, Tax Research produces a summary listing of all returns with annualized tax payments of $56,000 or more (taxable income of $1 million or more). These payments are categorized by major standard industrial classification category (i.e. mining, retail sales, wholesale sales, etc.). This data provides a rather imprecise indication of major taxpaying industries and trends; however it does not provide taxpayer specific or tax period specific data.

Data on national profit levels is obtained quarterly from the Business Week Corporate Scoreboard which shows quarterly and year-to-date profit levels for major national corporations categorized by industry groups. Miscellaneous articles on profitability from the Wall Street Journal, Oil and Gas Journal and other financial publications are also reviewed. Projections of total U.S. corporate profit levels (corporate profits before tax with inventory valuation adjustment) are provided by the DRI and the Wharton models, with some sectorial breakdown.

Implementation of an automated records system was promised for March, 1987. A major problem arose regarding the posting of registrations for corporate subsidiaries. As of March, 1988, a substantial portion of calendar 1987 records have not been posted to the master file. Returns processing has also been significantly delayed.

Beginning with 1987 calendar year returns (due March, 1988), some information will be available from this automated system. The estimate prepared in December, 1987 for the 76th and 77th fiscal years was substantially affected by this transition delay.

METHODOLOGY

Reconstruction of Previous Fiscal Year: In prior years an attempt was made using the corporate payments listing, to detail the previous fiscal year's corporate tax base by taxable income categories and selected SIC categories. Tables were prepared summarizing for each quarter, total tax payments on tentative or final returns over $48,000 (corresponding to the top 2 brackets) by major SIC category. The reporting period represented by the payments was also identified since different growth rates are applied to different reporting periods. Generally, July - Sept. payments are split between taxpayers filing on a calendar year basis paying late and filers with a June 30 (or other) fiscal year reporting period; Oct. -Dec. payments are generally from fiscal year filers; Jan. - Mar. payments are almost totally from calendar year filers, with a large number of these returns being tentative payments; and Apr. -June payments are a mix of calendar year and fiscal year filers. Often one or two extraordinary which may distort the base payments ($1 to $5 million) are received from things like sales of property.

Net revenues for the 76th and 77th fiscal years (done December, 1987) were estimated in a substantially different way. This substitute method will be discussed later.

Beginning with the 1986-87 fiscal year the estimates have two distinct pieces. The first is estimated payments. For calendar year taxpayers, estimated payments in July-Dec should equal estimated payments actually made in Jan-June of the previous fiscal year. For

these taxpayers the big unknown is how close these estimated payments approximate final liability and whether the final payments will be made on time, in March, or late, presumably in September. Estimated payments in Jan-June represent the next (current) year liability and should be somewhat related to profitability forecasts. The same considerations apply to fiscal year taxpayers, although the timing is different and must be assessed in terms of which State fiscal year it affects.

The second piece is the regular tax liability and payments for corporations not making estimated payments. For fiscal 1986-87, the first year of estimated payment requirements, the major consideration is how much compliance we get in making estimated payments.

Shifts in when final payments are made, especially between March and September for calendar years filers, are a major source of volatility in tax collections. While some attempt is made to adjust for this, there is really no simple explanation, like real interest rate charges for late payments, that seems to fit. The application of operating loss carryback's against prior year payments also contributes significantly to the volatility of net receipts, by magnifying the effect of business cycles.

Refunds by quarter are also listed and some attempt is made to identify major refund recipients and the reason for the refund (loss carrybacks due to recession, corporate restructuring, court decisions, etc.) No data is readily available on refunds; conversations with the processing staff about specific large refunds, outstanding loss carrybacks, etc. are relied upon to provide a more educated guess about refund amounts.

Reconciliation of 75th fiscal year Estimate against Actual Net Revenues
(Millions)

	Gross Payments		Refunds		Net	
	Estimate	Actual	Estimate	Actual	Est.	Actual
75th Fiscal Year						
Q_1	25,940	25,940	885	885	25,055	25,055
Q_2	18,000	21,427	5,000	4,095	13,000	17,332
Q_3	13,560	37,154	3,115	2,140	10,445	35,014
Q_4	16,500	23,221	5,000	1,483	11,500	21,738
	74,000	107,746	14,000	8,603	60,000	99,139

76th and 77th Estimate: Simplified Approach

A major problem in the estimating methodology for corporate revenues was revealed in the 75th Fiscal Year. Estimated gross payments were $74,000 while actual payments were $107,743. Estimated refunds were $14,000 while actual refunds were $8,603. Overall, the actual net corporate tax collections were 65% over the estimate.

This under estimate was composed of several issues:

1) Approximately $10 million in unanticipated Palo Verde leaseback capital gains.
2) Asset sales by corporations seeking advantageous capital gains rates (this is the TRA effect).
3) Several million dollars in refunds were applied to 1987 estimated tax payments.
4) Higher compliance levels with corporate estimated tax payments than anticipated. First quarter 75th Fiscal Year receipts from the new CIT-8 estimated tax payments were lower than expected. The estimate was revised downward by $4 million between October and December, 1986 on the assumption that underlying profitability was weak. In fact, many corporations filed tentative returns, and fiscal year receipts were only weakly affected by this compliance (not profitability) problem.
5) The effect of lower oil prices on mining profitability was overestimated. In fact, prices recovered somewhat in the latter part of the 1986.
6) The corporate franchise tax of $50 per corporation was not included in the estimate.

These factors point to the continued difficulty in estimating this revenue source.

76th & 77th Fiscal Year Estimates

Until the 1986 and 1987 tax return automated system is fully functional, an interim methodology has been adopted. A long term trend corrected for Palo Verde leasebacks and one time accelerated cash flow due to the quarterly estimated tax program has been used. This method averages increases in the taxable base due to profitability and federal tax law, as well as the two rate changes in 1983 and 1986. This derived number was increased by the TRA estimate and franchise fee.

	Gross Payments ($Million)	Refunds ($Million)	Net to General Fund ($Million)
76th Base	64.0	10.0	
TRA (.4 x 5)	2.0		
Franchise	1.4		
	69.4	10.0	59.4
77th Base	72.2	10.0	
TRA (1.0 x 5.0)	5.0		
Franchise	1.8		
	79.0		69.0

Quarterly Receipts

The transition from a tentative/final pattern to a quarterly estimated pattern has caused some difficulties. It is assumed that the following now obtains:

Quarter	Factor
Q_1	.163
Q_2	.219
Q_3	.380
Q_4	.238

The first quarter has been corrected to the actual net collection ($12,900) with the remainder spread evenly throughout the fiscal year.

QUARTERLIES-(12/87)

74th Fiscal Year	Gross Payments Estimate	Gross Payments Actual	Refunds Estimate	Refunds Actual	Actual Net
Q_1	11,815	11,815	900	926	10,889
Q_2	7,000	10,004	8,600	7,313	2,691
Q_3*	35,035	29,414	800	2,520	26,890
Q_4**	8,150	10,050	700	2,040	8,009
Total	62,000	61,283	11,000	12,800	48,479
75th Fiscal Year					
Q_1	25,940	25,940	885	885	25,055
Q_2	18,000	21,427	5,000	4,095	17,332
Q_3	13,560	37,154	3,115	2,140	35,014
Q_4	16,500	23,221	5,000	1,483	21,738
Total	74,000	107,742	14,000	8,603	99,139

76th Fiscal Year	Gross Payments Estimated	Gross Payments Actual	Refunds Estimated	Refunds Actual	Net Corrected (1)	Net Reported to LFC (1)
Q_1	14,125	14,125	1,268	1,268	12,857	24,500
Q_2	19,200		7,000		12,200	13,000
Q_3	21,800		800		21,000	10,500
Q_4	14,275		932		13,343	11,400
Total	69,400	14,125	10,000	1,268	59,400	59,400

1) Quarterly pattern reported to LFC was determined from 75th FY pattern. Large September, 1986 payments were received as final settlements from tax years beginning prior to the enactment of the estimated payment program. The numbers reported here correct that methodological error. The corrected numbers were transmitted to LFC and DFA but were not incorporated in the estimate.

* Actual excludes PNM payment for Palo Verde of $10 million.

** Actual excludes estimated payments for 1986 liability which amounted to $13.6 million, including Palo Verde.

74th Fiscal Year Total =	$48,479
	10,004
	13,600
	$72,083

7. ESTATE TAX

DESCRIPTION

The New Mexico Estate Tax is equal to the maximum credit for state death taxes allowed under the federal estate tax act. This state credit amount is based on the value of the federal adjusted taxable estate. The federal government allows certain deductions or exclusions in determining the adjusted taxable base and any changes in these deduction or exclusions automatically affect New Mexico's estate tax receipts.

The Economic Recovery Tax Act of 1981 (ERTA) made two major changes in the deductions or exclusions allowed for estate tax purposes which will dramatically reduce the payment of estate taxes at the national and the state level. The first change provides for an unlimited martial deduction for estates of decedents dying after December 31, 1981. This means that all assets transferred to one's spouse at death will be completely free of estate taxes.

The second major change in estate taxes was a six-year phased increase in the amount of the unified credit, which determines the amount of one's estate which is exempt from estate taxes regardless of the beneficiary. The ERTA raised the value at which estates become taxable as follows:

	Credit	Equivalent
1981 (previous law)	$ 47,000	$ 175,625
1982	62,000	225,000
1983	79,300	275,000
1984	96,300	325,000
1985	121,800	400,000
1986	155,800	500,000
1987 and after	192,800	600,000

The estate tax maximum federal state death tax credit is a progressive amount of the taxable estate base ranging from .8% on adjusted taxable amounts of over 40,000 to 16% on amounts greater than $10,040,000 (see table which follows).

Example:

The following example illustrates how the federal estate tax is derived and how the New Mexico tax liability is determined from the federal credit amount.

Ms. White a resident of Colorado dies in 1984 leaving a gross estate of $1,500,000, of which $500,000 is property in New Mexico. She leaves all of the estate to her child. Her estate taxes would be as follows:

Gross estate	$1,500,000
Less: Administrative expenses	100,000
Taxable estate	1,400,000
Federal Tax before unified credit	512,800
Less: unified credit	96,300
Total Federal and State estate taxes	416,500
Less: State estate tax credit	58,000
Federal estate tax	358,500
New Mexico estate tax - 33% of state estate tax credit	19,331
Colorado estate tax - 67% of state estate tax credit	38,669

The estate tax is due nine months after the date of death, with up to twelve months of federal and state extensions granted. Estate tax returns are processed by the Special Procedures Bureau of the Revenue Division.

Effective July 1, 1983 the Taxation and Revenue Department can accept "acceptable works of art" in an amount not to exceed $100,000 per year as a credit against estate tax liability. The Museum of New Mexico determines "acceptability". Laws 1987, Chapter 164 increased the $100,000 limit to $5,000,000.

DATA SOURCES

Very little data is readily available from the estate tax returns since they are manually processed and filed. Taxpayers file a copy of their federal estate tax form (Form 706) and a New Mexico form (ETA-1). According to Special Procedures, approximately 2,000 to 2,500 returns are processed annually (some of these are no tax due returns filed to receive a settlement certificate). The number of liability returns is roughly constant (with negative trend).

Calendar Year	Number of Returns	Amounts ($Thousands)
1984	373	3,256
1985	363	5,277
1986	325	5,043
1987	276	4,485
1988 est.	282	4,553
1989 est.	282	4,553

METHODOLOGY

Estate tax receipts are quite volatile depending on the timing and magnitude of payments from large estates. Basically a trend estimate is used, with some adjustments made for the federal base changes (some increase in the exemption amount has occurred over the past several years, so it is partially reflected in the trend). Also, some adjustment may be done for very large estates. The 1987 change in law allowing art acceptance in lieu of cash will undoubtedly result in decreased revenue to the General Fund.

Estimates for the 75th and 76th Fiscal Years - ($Millions)

70th	71st	72nd	73rd	74th*	75th est**	76th est**	77th est.
$3.7	$4.7	$3.0	$3.9	$7.7	$3.4	$4.5	$4.6

* 74th -- Settlement of one exceptionally large estate accounted for about $2.5 million of total.

** 75th & 76th - Use "base" estimate of $4.5 million which assumes some large settlements each year. This has been adjusted downwards by $1.5 million estimated art acceptance.

QUARTERLIES

There is no discernable pattern. Assume actual first quarter equals remaining quarters for 76th fiscal year:

Q1	Q2	Q3	Q4	Total
1,270	1,075	1,075	1,080	4,500

A slightly more conservative number was reported to LFC prior to this final analysis:

Q1	Q2	Q3	Q4	Total
1,270	910	910	910	4,000

STATE DEATH TAX CREDIT FOR ESTATE TAX

The following state death tax credit table applies to estates of decedents dying after 1976.

Adjusted Taxable Estate* From	To	Credit =	+ %	Of Excess Over
0	$ 40,000	0	0	0
$ 40,000	90,000	0	0.8	$ 40,000
90,000	140,000	$ 400	1.6	90,000
140,000	240,000	1,200	2.4	140,000
240,000	440,000	3,600	3.2	240,000
440,000	640,000	10,000	4.0	440,000
640,000	840,000	18,000	4.8	640,000
840,000	1,040,000	27,600	5.6	840,000
1,040,000	1,540,000	38,800	6.4	1,040,000
1,540,000	2,040,000	70,800	7.2	1,540,000
2,040,000	2,540,000	106,800	8.0	2,040,000
2,540,000	3,040,000	146,800	8.8	2,540,000
3,040,000	3,540,000	190,800	9.6	3,040,000
3,540,000	4,040,000	238,800	10.4	3,540,000
4,040,000	5,040,000	290,800	11.2	4,040,000
5,040,000	6,040,000	402,800	12.0	5,040,000
6,040,000	7,040,000	522,800	12.8	6,040,000
7,040,000	8,040,000	650,800	13.6	7,040,000
8,040,000	9,040,000	786,800	14.4	8,040,000
9,040,000	10,040,000	930,800	15.2	9,040,000
10,040,000	.....	1,082,800	16.0	10,040,000

*The adjusted taxable estate is the taxable estate reduced by $60,000.

8. OIL AND GAS TAXES

DESCRIPTION

Oil and Gas School Tax and Conservation Tax

For the oil and gas school tax and the conservation tax, the tax base is the sales value less federal, state and Indian royalties and the cost of trucking oil to the nearest market. The royalty deduction for gas is approximately 10% of sales value, while the combined deduction for trucking and royalties for oil is also around 10%.

Tax rates are 3.15% for the oil and gas school tax and .18% for the conservation tax (7% goes to the General Fund). Note that the conservation tax also applies to coal and uranium.

Taxes are due on the 25th day of the second month following the end of the month in which sales occur, so that the sales month period corresponding to the fiscal year is May-April.

Oil and Gas Severance Tax

For oil, the severance tax base is the same as the school tax base and the rate is 3.75%. Natural gas is taxed at a unit rate of $.163 per mcf, except that gas produced from certain new wells is subject to a value tax imposed at a rate of 3.75%. The volume attributable to state, federal and Indian royalty shares is deductible.

Taxes are due on the 25th day of the second month following the end of this month in which sales occur.

Natural Gas Processors Tax

The tax base is the sales value of products processed, and the rate is .45%. Taxes are due 25 days following the end of the sales month, so the sales period corresponding to the fiscal year is June-May. Most natural gas must be run through a processing plant to remove impurities and to recover by-products, but the proportion of gas sales processed in New Mexico used in revenue estimating is recomputed each year.

DATA SOURCES

1. Monthly reports on production volume, value, deductions and taxes paid (by county) produced by the Oil and Gas Section, Revenue Processing Division. Reports are updated every month, so that revised reports may be obtained on an "as needed" basis, in addition to the initial report which is automatically distributed to TRD and DFA analysts.
2. Monthly production and pipeline take reports of the Oil Conservation Division, Energy and Minerals Department.
3. Monthly reports on natural gas production by NGPA category, prepared by the Oil Conservation Division.
4. Oil and Gas Journal, Wall Street Journal, other periodicals.
5. Special reports by investment houses and others.
6. EMD staff and industry representatives. The Oil Conservation Division of the EMD now has a gas marketing specialist who may provide helpful.
7. Oil price postings of major and regional refineries.
8. Other periodic reports by TRD: Annual land ownership analysis, summaries of collections, etc.
9. DRI forecast chapter on Energy.
10. Energy specialists in other state governments, notably Texas (Comptroller's Office) and California (Energy Board).

METHODOLOGY

Revenue estimating methodology must take account of the rapid changes which are occurring in the oil and gas industry. For this reason, the methods of forecasting production taxes on these minerals change from year to year. The following discussion indicates how the forecast for the 76th and 77th fiscal years was derived.

Oil Sales Volume

A new oil production model has been developed for inclusion in the FOR-UNM model. For the time being, the model will be tracked for accuracy and compared with the traditional forecast, which continues to be based on extrapolation of recent trends. This practice is somewhat justifiable because oil production levels at present are determined largely by supply side considerations - that is, at any given price established by the world market New Mexico can sell all the oil it can produce for that price (demand is perfectly elastic at the given price). Generally, the short run supply response to price changes is rather limited because most oil produced in the forecast period comes from wells which are already in production at the beginning of the period, and once in production, wells are unlikely to be shut in because variable costs are only a small portion of total costs. For the current year, the forecast calls for a decline of around 7% from the prior year's taxable level of 73.7 million barrels, or 69 million barrels. Next year, a further decline of 6% expected, yielding a production level of 65 million barrels. This forecast is somewhat higher than the FOR-UNM forecast, which calls for production of 66.7 million barrels in the period April, 1987-March, 1988 and 60.7 million barrels in the following 12-month period.

Oil Prices

No models have been developed to forecast either gas or oil prices. Short term oil prices are largely determined by the international market, which is heavily influenced by the reactions of the OPEC cartel to changes in the demand for oil and supply conditions in non-OPEC nations. Current and projected inventories appear to have some influence on pricing policies, but given the extent to which prices have been manipulated, it is doubtful that a mathematical relationship could be established. For the current year, actual year-to-date prices are consulted but because of the lag in the tax reporting system, these are

several months behind. Up-to-date prices may be estimated on the basis of posted prices. Projections for the remainder of the current year and for the upcoming fiscal year are based upon a variety of sources--the DRI forecast, forecasts of other oil producing states, Wall Street analysts, and spot market trends.

The actual average oil price recorded in the first quarter of the current fiscal year (May-July, 1987) was $18.07. After peaking in July near the $19-$20 level, prices lost ground somewhat toward the end of August, and again in September with an uptick in October. Adjusting for quality characteristics, the average price is expected to be around $18.30 in the August-October period. In November, further weakening was noted as Saudi Arabia boosted production in preparation for the December OPEC meeting. Prices are expected to fall to around the $17.00 per barrel level in the November-January period, leveling off more or less at that level through the spring. The average for the four quarters is $17.50. No specific price trajectory was formulated for next year, because most analysts expect continued volatility as OPEC meets with mixed success in its efforts to patch together a production agreement. An average price of $17.50 per barrel was projected for next year, essential a no-change scenario.

Natural Gas Sales Volume

The sales volume figures for natural gas continue to follow a highly volatile pattern. After rebounding to a level of around 926 BCF in FY 1985, production fell for two years straight, first to 804 in 1986 and then to 661 in 1987. Losses are attributable to a variety of causes, including climate (conditions favorable for hydroelectric power generation) changes in storage patterns, back-out of natural gas by nuclear power plants, and fuel switching. Of greatest importance, however, was the change in purchasing patterns by major California utilities away from long-term contact supplies to spot market purchases. This change, which was made possible by federal regulatory actions, reduced New Mexico

sales because a disproportionately large share spot market supplies came from Texas and Oklahoma. Finally, the development of switch-over capability allowing the diversion of Canadian supplies from Northern to Southern California also cut into New Mexico sales.

Some of the factors which reduced New Mexico sales to the lowest level in decades were of a transitory nature, while others will provide more durable and will probably prevent sales from regaining the trillion cubic foot level anytime in the foreseeable future. Nevertheless, in the early months of the current fiscal year, considerable gains were experienced, and in some cases more traditional purchase patterns appeared to be reasserting themselves. The following forecast is based on a projection of pipeline "takes" (including pipeline purchases and system-dedicated supplies released for third-party purchases) on an individual system basis:

Pipeline System	Actual 1986-87	Estimated 1987-88	Estimated 1988-89
EPG & Transwestern(1)	385	515	460
Natural Gas Pipeline(2)	25	25	25
Northwest(3)	45	65	60
Northern Natural Gas(2)	35	35	35
Gas Company NM(2)	20	20	20
Sunterra(4)	50	40	40
Llano(2)	35	35	35
Subtotal	595	735	675
"Gross-Up" Factor	.895	.895	.895
Total (approximate)	**665**	**820**	**760**

Notes:

(1) Forecast for EPG and Transwestern is based on the following assumptions:
   (a) California demand for the current fiscal year will be 160 BCF over last year's level of 1753 BCF. Of the increase, 40 BCF represents a return to normal storage practices (i.e. as much gas will be placed in storage as is withdrawn over a 12-month period) and 120 BCF represents increased utility demand, which is largely attributable to a temporary reduction in hydroelectric supplies. Next year, the hydroelectric situation will largely return to normal.

Notes (Continued)

(b) Arizona demand will fall by 15 BCF from last year's 90 BCF level, owing to the backing out of natural gas by increased nuclear power generation.

(c) The ratio of EPG and Transwestern "takes" to California and Arizona demand will increase from last year's .21 level to around .25, which approaches the prior year's ratio of .27 and represents a return to a more normal situation. This ratio is approximately that which reestablished itself in the summer of 1987.

(2) Takes are expected to be more-or-less unchanged, with little dramatic change in the market for these pipelines.

(3) Northwest has announced a policy change in its utilization of New Mexico supplies. Volumes represent a return to historic levels, although next year "takes" may fall off somewhat, owing to replenishment of hydroelectric supplies.

(4) Sunterra (Southern Union Gathering) may lose some spot market sales with the reassertion of traditional supply patterns for California market.

It would be difficult to underestimate the uncertainties in the natural gas forecast. Two of the critical assumptions which underlie this forecast are (1) the tightening spot market in Texas and Oklahoma will make a return to New Mexico sources of supply (whether third-party gas or pipeline-resales) more attractive; and (2) the forecast period is too short to allow completion of the required regulatory steps for dramatic increases in Canadian supplies.

Natural Gas Prices

Last year's partial oil price recovery allowed enough headroom in natural gas so that prices were not compressed to the anticipated level. Actual prices in the May-July, 1987, quarter averaged $1.62 with a low of $1.60 recorded in July. Prices in the August-October are expected to edge upward, averaging $1.63 per MCF, with particular strength in October attributable to an early cold spell in the Northeast. Spot market shortages were already appearing in November, and a winter price spike is virtually assured. The November-January period should easily average over $1.70 per MCF, (the forecast calls for $1.73), but prices are expected to drop to $1.60 in the February-April period. The

scenario for natural gas prices also seemed reasonable. Therefore, next year's average natural gas price is expected to be unchanged at $1.65 per MCF.

This pattern presupposes that substantial boosts in Canadian imports above current levels will not occur in the forecast period. Spot and contract prices appear to be ready to converge, except for seasonal fluctuations, so a differentiation in the forecast is less critical than has been the case in the past. Overall, this price forecast is in line with the predictions of other industry analysts. For example, Cabot consulting group projects prices of $1.59 for 1988; Donaldson, Lufkin and Jenrette predict average prices of $1.60 in 1987, $1.70 in 1988 and $1.80 in 1989. Cambridge Energy Associates cited prices of $1.55 - $1.65 this winter and $1.55 - $1.60 next summer. These projections are relevant to the New Mexico forecast because partial deregulation of the natural gas market has meant that the market, which was once largely regional in nature, has become truly national.

Carbon Dioxide

Sales of carbon dioxide have stabilized at somewhat over 10 BCF per month. Since this sales volume is approximately the current processing plant capacity and since further capacity additions have been postponed, it is assumed sales will remain at this level throughout the forecast period. Altogether, then, sales volume is expected to equal 130 BCF per year for both years of the forecast.

As oil prices rose, carbon dioxide prices firmed, and currently equal $.51/per MCF. A price of at least $.50 per MCF is expected throughout the forecast period and should be easily sustained if oil prices remain at the forecast level of $17.00 - $18.00 per barrel.

FORECAST FOR THE 76TH AND 77TH FISCAL YEARS (12/87)

Once assumptions regarding volume, average sales price and royalty deductions are adopted, the estimate of tax collections is mostly a matter of straightforward computation. As noted, the estimated average oil price is $17.50 per barrel for both fiscal year 1987-88 and 1988-89. Natural gas prices are estimated at approximately $1.65/per MCF both years. Natural gas production volume was expected to equal 820 BCF in 1987-88 and 760 BCF in 1988-89. Oil production is estimated at 69 million barrels in 1987-88 and 65 million in 1988-89. The tables which follow show the computations for General Fund oil and gas tax forecasts (tax estimates are in millions of dollars).

Because the oil and gas school tax estimate is prepared by estimating prices and sales volumes on a quarterly basis, the quarterly tracking pattern automatically falls out of the basic revenue forecast.

A) Oil and Gas School Tax Estimate

	1987-88 (Quarterly and Annual)					1988-89 (Annual)
Oil:	1987.3	1987.4	1988.1	1988.2	Total	Total
Vol. (million bbls)	17.5	17.5	17	17	69	65
Price	18.07	18.30	17.00	16.65	17.50	17.50
Value ($millions)	316.2	320.3	289.0	283.0	1,207.5	1,137.5
Deducts (10%)	31.6	32.0	28.9	28.3	120.8	113.8
Taxable	284.6	288.3	260.1	254.7	1,086.7	1,023.7
Tax @.0315 ($millions)	9.0	9.0	8.2	8.0	34.2	32.2
Gas:						
Vol. (BCF)	180	210	250	180	820	760
Price	1.62	1.63	1.73	1.60	1.65	1.65
Value ($millions)	291.6	342.3	432.5	288.0	1,353.0	1,254.0
Deducts (10%)	29.2	34.2	43.3	28.8	135.3	125.4
Taxable	262.4	308.1	389.2	259.2	1,217.7	1,128.6
Tax @.0315 ($millions)	8.3	9.7	12.2	8.2	38.4	35.6
Carbon Dioxide:						
Vol. (BCF)	32.5	32.5	32.5	32.5	130	130
Price	.50	.50	.50	.50	.50	.50
Value ($millions)	16.25	16.25	16.25	16.25	65.0	65.0
Deducts (5%)	.80	.80	.80	.80	3.3	3.3
Taxable	15.45	15.45	15.45	15.45	61.7	61.7
Tax @.0315 ($millions)	.5	.5	.5	.4	1.9	1.9
Total Tax	17.8	19.2	20.9	16.6	74.5	69.7

B) Natural Gas Processors Tax

Except for a "scale" factor and a one month difference in the activity months corresponding to the fiscal year, variables for this tax are the same as for the natural gas portion of the school tax.

The "scale down" factor is used to account for the fact that the value of gas processed in New Mexico generally falls short of the value produced in New Mexico. Currently, the "scale" factor appears to be around .95.

Revenues were estimated as follows:

	75th FY (1986-87)	76th FY (1987-88)
Volume (million mcf)	820	760
Price per mcf	1.65	1.65
Value ($million)	1,353	1,254
x .95	1,285	1,191
Tax at .0045 ($millions)	5.8	5.4

C) Conservation Tax (Millions of dollars)

The oil and gas computations are similar to those for the school tax. The following refers to revenues exclusive of the one-one hundredths percent which goes to the oil reclamation fund.

	1987-88	1988-89
Oil:		
Volume (million bbls.)	69	65
Price	17.50	17.50
Value ($millions)	1,207.5	1,137.5
Deducts (10%)	120.8	113.8
Taxable Value	1,086.7	1,023.7
Tax @ .0018 ($millions)	1.960	1.840
Gas:		
Volume (BCF)	820	760
Price	1.65	1.65
Value ($millions)	1,353.0	1,254.0
Deducts (10%)	135.3	125.4
Taxable Value	1,217.7	1,128.6
Tax @ .0018 ($millions)	2.190	2.030
Carbon Dioxide:		
Volume (BCF)	130	130
Price	.50	.50
Value ($millions)	65.0	65.0
Deducts (5%)	3.3	3.3
Taxable Value	61.7	61.7
Tax @ .0018 ($millions)	.110	.110
Coal:		
Value (see "Hard Mineral" Section)	431.0	457.0
Deducts	30.0	32.0
Taxable Value	401.0	425.0
Tax @ .0018 ($millions)	.720	.770
Uranium:		
Tax (plugged)	.040	--
Total Conservation Tax (millions)	5.020	4.750
General Fund (7%)	.360	.330
Conservation Fund (93%)	4.670	4.420

Oil and Gas School Tax:
COMPARISON OF ACTUALS AND ESTIMATES, FY 1986-87

The following tabulation compares actual oil and gas school tax revenues for fiscal year 1986-87 with the estimates prepared in December, 1986.

	Actual	Estimate
Oil:		
Volume (M bbls)	79.3	73.0
Price (per bbl)	14.2	13.0
Value	1,040.6	949.0
Deducts	107.5	94.9
Taxable	933.1	854.1
Tax **	29.4	26.9
Gas:		
Volume (BCF)	664.5	600.0
Price (per MCF)	1.659	1.58
Value	1,102.4	948.0
Deducts		94.8
Taxable	1,003.9	853.2
Tax	31.6	26.9
Carbon Dioxide:		
Volume (BCF)	131.8	120.0
Price (per MCF)	.485	.48
Value	64.0	57.6
Deducts	3.2	57.6
Taxable	60.8	57.6
Tax	1.9	1.7
Total	62.9	55.5
Adjustments:		
Protests Dropped	+.7	+.7
Refunds	-1.0	-.7
Adjusted Total	62.6	55.5

** Note: Actual values are those for the months of May, 1986-April, 1987 as reported on the statistical run of 10/30/86. Because of the difference in timing between collections and the generation of tax liability, actual collections transferred to the General Fund were somewhat different -- 62.9, compared to the statistical run total of 62.6

9. TAXES ON HARD MINERAL PRODUCTION

DESCRIPTION

Resources Excise Tax

The tax base is essentially the sales value after severing or processing, less federal, State and Indian royalties. Because the value of processing is included, the resources excise tax base is somewhat broader than the severance tax base. The rate is 3/4%, except for potash (generally taxed at 1/8%), molybdenum (1/8%), and timber (generally taxed at 3/8%). Also, the rate for "processed" copper is temporarily reduced to 1/4% for three years but will revert to 3/4% on July 1, 1988. Although the tax is technically divided into three sub-categories--resource tax, processors tax and service tax--the distinctions are generally not particularly useful in revenue estimating. Taxes are due 25 days following the end of the month in which sale, transportation out of New Mexico, or consumption occurs.

Severance Tax

The severance tax on coal is a unit tax, adjusted for inflation. The base rate is $.57 per ton for surface coal and $.55 per ton for underground coal, plus a surtax which is determined by changes in the CPI. The surtax rate is changed each year in July. Beginning July 1, 1987 the rates are $1.081 per ton for surface coal and $1.043 per ton for underground coal.

The uranium tax is a value tax; its base is 50% of the price per pound of U_3O_8 its rate is 3.5%. In the case of ore sales, the base is 50% of the value of U_3O_8 contained in the ore.

The taxable value of potash is one third of the sales price less fifty percent for specified costs. The tax is imposed at a rate of 2.5%. For molybdenum, the taxable value is the value contained in concentrates less fifty percent as a deduction for certain costs. The tax is composed at a rate of 1/8%. The taxable value of copper is two-thirds (.67) of the sales value, computed by multiplying the pounds sold by the average monthly Comex price, less one half (.50) the sales value so computed, or .17 times the sales value. The rate is .5%.

For all other minerals, except gold, silver, lead and zinc, the tax base is the gross (sales) value at the first marketable point after deduction of certain costs. The deductions allowed vary according to whether the product has a posted field or market price or must be processed or beneficiated before sale. The rate is 1/8 percent for timber and all other minerals. Gold, silver, lead and zinc are also taxed on the basis of a fraction of the value established by reference to published prices for refined products. However, they contribute relatively little to total tax collections and are not separately forecasted.

DATA SOURCES

1. Monthly severance and resources tax ledgers for major minerals, and annual and fiscal year summaries of all minerals (not confidential since July, 1985), supplied by the Oil and Gas Section, Revenue Processing Division;

2. Publications of the Energy and Minerals Department (notably the Annual Report and special forecasting or market studies);

3. New Mexico Monthly Report on the Nuclear Fuel Market;

4. Industry representatives;

5. U. S. Bureau of Mines (see below);

6. Newspaper clippings,

7. New Mexico Labor Market Review.

METHODOLOGY

Forecasts are not based upon a formal estimating model but upon a qualitative analysis of the trends in each of four major mining sectors: coal, potash, uranium and copper.

Coal

The severance tax on coal is a unit tax, and the determinants of revenue collections, therefore, are the tax rate per ton and the number of tons sold. The current year's tax rate is known, and the rate for the next year is computed on the basis of the CPI projection, which is part of the base economic forecast. (Tax rates change in July, affecting collections in August, so a one-month lag must be built into the forecast). The resources excise tax forecast is based upon value, so that average prices must also be projected.

(A) Volume projections. There are two components of the forecast: (1) discrete changes due to new mine openings or to mine closures; and (2) marginal changes due to changes in the level of activity at existing mines. Sources of information for the first component are newspaper articles and the staff of the EMD. To gauge changes derived

from the second component, it is sometimes necessary to contact mine managers, at least for the major mines: McKinley, Navajo and San Juan. Otherwise, the staff of the EMD are helpful in evaluating changes at existing mines. Marginal changes are obviously due to changes in demand for coal-fired electricity, but a host of other factors--down time at generating stations, inventory shifts, occasional changes in contracts, especially for those mines not serving specific power plants--make this component of the forecast difficult. Unless a particular change in behavior is anticipated, forecasts of activity at existing mines are based on an extrapolation of recent trends on a company-by-company basis. Note: Sales and production usually are relatively close to one another for most New Mexico mines but stockpiling can cause production to swing by as much as a million tons per year. The forecast for 1987-88 and 1988-89 reflects an unchanged level of coal use, but sales are down slightly for 1987-88, reflecting a correction in an inventory build-up in the spring of 1987.

(B) Value of production. Prices are projected on a company-by-company basis, usually as an extrapolation of recent trends, because most coal is sold on a long-term contract with an escalator clause. However, some mines do sell on short term contracts and there are occasional spot-market sales. Even when these sales take place, however, the price is usually constrained by the cost of production, so that sales often occur at prices similar to those received by the company in the past. In any event, projecting prices on an extrapolated basis usually does not cause any problems. Contact mine officials or EMD for prices at new mines. The value of production for each company is estimated as the product of price times volume, making allowances for extra value reported by taxpayers paying the service charge.

(C) Deductions. Royalty deductions are allowed for the resources excise tax. These are usually projected on the basis of past trends or on the basis of specific information on changes in royalty rates.

(D) Computation of tax revenues. For the resources excise tax, the statutory rate of .75% is applied to the value of sales (price times volume) less royalty deductions. For the severance tax, the unit rates for underground and surface coal are applied to the estimated sales volume of each, taking account of the one-month lag in the rate change.

Uranium

Since July 1, 1983, both the resources excise tax and the severance tax are levied upon sales value. Generally, the forecast is prepared in much the same fashion as coal in that sales volumes and average prices are forecast and the statutory rate is applied to compute the tax. Mine managers, sales managers or EMD staff were contracted to prepare the sales forecast.

As of the fall of 1985, only the Chevron/Gulf Mt. Taylor mine was active, with sales running at a rate of around 2.5 million pounds of U308 per year. In addition, mine water recovery operations conducted by Homestake are responsible for the production of another 250,000 pounds per year. Current production from the Chevron operation is reported at below-market prices, while inventory sales occur either at spot or old (and higher) prices. Future Homestake sales are expected to occur largely at spot market price levels. Because the amount of uranium expected to be sold from inventories under old contracts is declining each year, uranium revenues continue to fall. The 1988-89 level represents an anticipated "floor" level. Details of tax computations are provided at the end of this section.

Copper

With the adoption of a new severance tax law affecting copper, it is possible, for the first time, to track production on the tax reports. These reports reveal that New Mexico's production was around 520 million pounds last fiscal year, but was stronger in recent months. Therefore, the forecast for the current year is 560 million pounds. With continuing large investments in New Mexico facilities, this production level is expected to rise somewhat in the near future, although maintenance of current production levels will require development of new sources in the early 1990's. With the acquisition by Phelps Dodge of Kennecott's majority interest in the Chino mine, PD has become virtually the state's only copper mine operator. The company is currently expanding its solvent extraction process capabilities, and the copper market is currently strong by recent standards. The forecast shows some growth in production next year to the 580 million pound level. Prices are estimated on the basis of price quotations on the futures market, and the estimated price throughout the forecast period is $.85/lb, up from last year's $.61 level. The current copper shortage is expected to extend into next fiscal year. Accordingly, the price forecast for next year is a high $.90 per pound.

This year, the tax rate applied to copper for resource excise tax purposes is .25% for "processed" copper, which encompasses all copper produced in the state. Next year, the rate reverts to .75%. During the last two years, some operations were reporting at the higher rate for unprocessed copper (.75%), as a result of which a substantial refund was made last year. A smaller refund of roughly $100,000 has been made in the current year, and the revenue forecast was adjusted accordingly. Tax computation details are shown at the end of this section.

Potash and Other Minerals

Potash receipts have held very stable for several years but are expected to fall somewhat in light of recent reductions in mining activity. Receipts from "other" minerals are generally less than $100,000 for the severance tax because of the substantial deductions and generally low (1/8%) applicable tax rate. However, tax receipts from "other" minerals can be significant under the resources excise tax, and are dominated by receipts from various stone-gravel type resources. At present, these appear to be running somewhat below the million dollar per year level. Some work could be done to determine if there is a relationship between construction activity and resource excise tax receipts from "other" minerals.

CHECKLIST FOR FORECASTING RESOURCES EXCISE AND SEVERANCE TAXES

1. Check with EMD publications and with staff members.
2. Check production plans with coal producers (if necessary), review newspaper clippings, FOR-UNM employment forecasts, text of Labor Market Review.
3. Update spreadsheets giving company detail from prior fiscal year and early months of current year.
4. Check with U.S. Bureau of Mines staff, as outlined above.

FORECAST FOR THE 76TH and 77TH FISCAL YEARS (10/87)

1. Coal

(A) Volume

Based largely upon company projections, some of which are confidential, the following coal sales volumes are expected in the forecast period:

Destination	1987-88	1988-89
Four Corners Power (Navajo)	7.6	7.8
San Juan Power (San Juan, La Plata, Gateway)	4.9	4.9
"Export" (Perma, McKinley, Lee Ranch, Mentmore)	7.3	7.8
Total	19.8	20.5

(B) Sales Value

The value is based upon the trend in sales prices recorded through the first months of 1986, and reflects some weakening of the energy market:

1987-88: (7.6)($15.40)+(4.9)($26)+(7.3)($25.50)=431 million ($21.75/ton)
1987-89: (1.026)(21.75)(20.5) = 457 million

(C) Estimated Severance Tax Rate, July, 1988 =

$$\frac{335.2\ (\text{CPIw 1987})}{170.5\ (\text{CPIw 1976})} \times \$.55 = \$1.081 \text{ ton underground}$$

335.2/170.5 x $.57 = $1.121 ton surface

Allowing for a one-month lag in receipts from the adjusted rate; the weighted average rate for surface coal for the current and upcoming fiscal years is:

Effective Severance Tax Rate per ton 1987-88 = (1.081) (11/12) + (1.065) (1/12) = $1.080
Effective Severance Tax Rate per ton 1988-89 = (1.121)(11/12) + (1.081 (1/12) = $1.117
(Very little coal is subject to the underground rate, and that is ignored)

(D) Severance Tax Estimate:
1987-88: (19.8)(1.081) = $21.4 million
1988-89: (20.5) (1.117) = $22.9 million

(E) Resources Tax Estimate:
Royalty deduction for 1986-87: $30 million
1987-88:(431-30)(.0075)=$3,000 (thousand)
1988-89:(457-32)(.0075)= $3,200 (thousand)

2. Uranium

	Volume	
Nature of Sale	1987-88	1988-89
Inventory	1.5	.2
Current Production	2.7	3.2
Total (million lbs)	4.2	3.4

Sales Value:
1987-88: (1.5)($33/lb)+(2.7)($11/lb) = $79 million.
1987-88: (.2)($30/lb)+(3.2)($12/lb) = $45 million.

Severance:
1987-88: (.0175) (79) = $1,380 (thousands).
1988-89: (.0175) (45) = $790 (thousands).

Resources:
1987-88: (.0075) (79) = $590 (thousands).
1988-89: (.0075) (45) = $340 (thousands).

3. Copper

As noted, the sales volume is estimated at 560 million lbs. this year and 580 next, and the price per pound is expected to average $.85/lb, this year and .90 next year.

Severance:
FY 1987-88: (.005) (560) (.85) (.17) = $400 (thousands)
FY 1988-89: (.005) (580) (.90) (.17) = $440 (thousands)

Resources:

The resource tax base is estimated to be around 85% of the severance base (it is based on the value of partially processed copper) and the tax rate for the current year is .25%. In the current fiscal year, allowance is made for a $100,000 refund. Next year's rate is .75%, but with a one-month lag, the effective rate is reduced to .71%. Accordingly, the forecast is:

FY 1987-88: (560) (.85) (.85) (.0025) -.1 = $910 (thousands)
FY 1988-89: (580) (.85) (.90) (.0071) = $3,150 (thousands)

Summary ($1000's)

Resources Excise

	1987-88		1988-89	
Coal	$ 3,000		$ 3,200	
Uran	590		340	
Copper	910		3,150	
Potash	150		150	
Other	850		900	
Total	$ 5,500		$ 7,740	(rounded to $7,700)

Severance

Coal	$21,400		$22,900	
Uran	1,380		790	
Copper	400		440	
Potash	400		400	
Other	100		100	
	$23,680	(rounded to $23,700)	$24,630	(rounded to $24,600)

QUARTERLY ESTIMATES - EXAMPLE

Quarterly estimates are prepared only for General Fund revenue sources, in this case, the resources excise tax. The quarterly breakdown is based upon the historical pattern for each of the major minerals and for the "other" category. In general, the pattern used is an average of immediately preceding years, though adjustments are frequently required for recent trends or aberrations. For 1987-88 the quarterly estimate reflects the following shares and dollar amounts:

	Shares				Amount ($1,000's)*				
Quarter:	I	II	III	IV	I	II	III	IV	Total
Coal	.25	.25	.25	.25	750	750	750	750	3,000
Uranium	.60	.10	.20	.10	350	60	120	60	590
Copper	.23	.21	.23	.32	130	220	230	330	910
Potash	.23	.23	.25	.29	40	30	40	40	150
Other	.25	.25	.25	.25	210	210	210	220	850
				Totals	1,480	1,270	1,350	1,400	5,500

* Adjusted to account for a $100,000 refund.

COMPARISON OF ACTUALS AND ESTIMATES, FY 1986-87: Resources Excise Tax

The following tabulations present a comparison of actual versus estimate collections for each resource for fiscal year 1985-86.

	Resource Excise Tax		
Mineral	Actual	Estimate	Comments
Coal	3,020	3,200	Coal volume overestimated (actual 20 million vs estimated 21.5 million tons); price fore-cast of $21.70 per ton correct.
Uranium	550	1,020	Sales from inventory did not develop; since inventory sales at significantly higher-than-current sales price, value of sales were significantly overstated (if a large June, 1987 sale had transpired one month earlier, much of the revenue gap would have been closed).
Copper	570	900	Effective tax rate was .25%, vs. .3% in forecast; a significant refund was paid to producer who had paid at .75%; volume of production, and, therefore, total sales value, was overstated.
Potash	180	150	No Comment
Other	730	1,000	Loss of sales in gravel products was significant probably due to construction slow-down.
Total	**5,050**	**6,270**	

COMPARISON OF ACTUALS AND ESTIMATES, FY 1986-87: SEVERANCE TAX

	Severance Tax		
Mineral	Actual	Estimate	Comments
Coal	20,980	22,800	Sales volume was 20.0 million tons vs. estimate of 21.5 million tons.
Uranium	1,300	2,380	Sales volume and value shortfall owing to less-than-expected inventory sales.
Copper	260	290	Volume somewhat short of expected amount
Potash	430	400	No comment
Other	50	200	Weakness in gravel/stone products
Total	23,020	26,070	

10. PROPERTY TAXES

DESCRIPTION

The tax base is composed of several pieces:

1. **Residential Properties:** The net taxable value is one third of the 1980 market value less veterans' and head of household exemption through tax year 1987, after which time the net taxable value will be based on "current" market values (defined as 1986 market levels for property tax year 1988). The veterans' exemption is $2,000 (applied against taxable value) for properties owned by persons meeting certain military service criteria. The head of family exemption is $200 through tax year 1988 and now applies to virtually every owner-occupied dwelling. The head of family exemption amount (applied against taxable value) is scheduled to increase to $800 in 1989, to $1,400 in 1991, and to $2,000 in 1993 (assuming voter approval of constitutional amendment in November, 1988). The values for most, but not quite all, residential properties are determined by county assessors. A few properties, such as those owned by mining companies, are valued by the Central Assessment Bureau of the TRD.

2. **Nonresidential Properties:** In general, the taxable value is either one-third market value or one-third cost less depreciation. Most commercial and light industrial properties are valued by local assessors, while utilities, mines, and a variety of other specified types of properties are valued by the Central Assessment Bureau. In many instances, centrally assessed properties are subject to special valuation methods, spelled out in the statutes.

3. **Oil and Gas Production:** The value is one half the sales value less state, federal and Indian royalties.

4. **Oil and Gas Equipment:** Lease equipment is valued at 9% of the prior calendar year's sales.

Tax rates for property taxes vary in accordance with location, though the maximum rates for operating purposes are $7.65/$1000 for municipalities, $11.85/$1000 for counties and $.50/$1000 for school districts (total maximum = $20/$1,000, constitutionally limited). Debt issuance in some instances is constitutionally restricted in accordance with a jurisdiction's total assessed value. The 1987 state debt levy was $1.15/$1,000. Other voter approved tax levies apply in virtually all jurisdictions. Overall state weighted average levies for 1987 were $22.404/$1,000 on residential property, $23.482/$1,000 on nonresidential property, and $20.027/$1,000 on oil and gas equipment and production.

During the 1980's a major revaluation effort was undertaken to update the outdated residential property value levels specified by statute. To avoid the huge increase in property taxes which would result, the "yield control" statute (Section 7-37-7.1 NMSA 1978) was adopted and extended to all non-debt tax levies upon all property subject to "valuation maintenance" (valuation updates). The "yield control" law generally limits revenue growth to 5% in any year.

Taxes for residential and non-residential properties (other than oil and gas) are due in November of the tax year and April of the year following the tax year. Oil and gas production taxes are due monthly on the twenty-fifth day of the second month following the end of the sales month (approximately 55 days). Oil and gas equipment taxes are due

in November. The property tax calendar is as follows: Centrally assessed values for the prior January are established by mid summer, at which time local assessors also report preliminary values to the Central Assessment Bureau. In March, the Revenue Processing Division prepares preliminary oil and gas equipment and production values, based on prior calendar year sales. Using all these values, the Local Government Division, DFA, sets rates by September 1 (values must be known in order to establish debt levies).

These rates serve as the basis for billings issued by county treasurers to owners of centrally and locally assessed properties in November and for billings issued by Revenue Processing Division to owners of oil and gas equipment properties. In the case of oil and gas production properties, the rates change once a year in September and collections based on these rates actually show up in December.

For further general information regarding the property tax, see the Tax Research and Statistics Office publication Overview of New Mexico Property Taxes, May, 1987.

DATA SOURCES

1. Past annual reports of the Property Tax Division
2. Mid-August preliminary valuations (Central Assessment Bureau)
3. Late November final valuations (Central Assessment Bureau)
4. Ad Valorem Equipment tax valuations and Production tax valuations from Revenue Processing Division
5. Levy sheets published by Local Government Division on or before September 1
6. Construction data (available from BBER)
7. Staff of Central Assessment Bureau

METHODOLOGY

Property taxes are not projected in the same sense that other revenues are projected because the state no longer imposes an operating levy. The property tax is largely a local revenue source, and the State government generally does not provide local revenue forecasts. However, data must be gathered to serve as the basis for fiscal impact analyses for legislative proposals. Depending upon the nature of the proposal, these impact analyses are variously prepared. For any statewide proposal, an estimate of the next year's property tax base might be utilized; but for the more common proposals which relate to specific localities and jurisdictions, no projection of future values is attempted. Rather, an "illustration" is generally provided which presents a scenario given the most recent actual valuation levels in the affected jurisdictions.

Proposals may involve various formulations such as: 1) a change in exemptions applied to taxable value; 2) a specific levy (rate) applied in certain jurisdictions for specified purposes; 3) a voter-approved bond issue which will require some fixed revenue yield to service the specified amount of debt; 4) other proposals relating to "yield control" provisions, county assessor administrative fees, etc. Property tax revenue estimates are the product of applying a levy (expressed in dollars per thousand dollars of net taxable value) to a taxable valuation. Since the levy or the required revenue amount will be specified (either directly or indirectly) in the proposed legislation, the exercise boils down to developing an estimate for taxable valuation, or a compilation of taxable values in the specific affected jurisdictions. There are four components of taxable properties, each with its own institutional framework and data sources, and the effects of any proposal may vary for each component. While the actual computations are rather straightforward, the analysis and specification of certain affects may become quite subtle and complex. The property components, the types of property represented, and sources of data for current year and upcoming year valuations are summarized below:

1. Centrally Valued Properties

Types of Property: Mostly mines, utilities, railroads (see Property Tax Division annual report for specific types of property). Property is valued by the Central Assessment Bureau, TRD. In most cases acquisition cost less depreciation is the basis for valuation, although special methods apply widely as well.

Current Year Value: Values upon which current year revenues will be derived are available by August, although tax protests may in some cases defer the date at which final values are available. Contact Central Assessment Bureau. Taxes on January 1 (e.g. 1987) values are due in November (e.g. 1987) and April (e.g. 1988).

Next Year's Value: Generally, values change slowly, so that time trend analysis will suffice. However, Central Assessment Bureau staff should be consulted for any unusual developments, particularly in mineral properties and utilities.

2. Locally Assessed Properties

Types of Property: Mostly residential, commercial, and light industrial properties. These properties are valued by county assessors. Residential properties were revalued to 1980 market levels for tax year 1986, and are to be updated to "current" values (defined as 1986 market levels) for tax year 1988. Commercial properties are valued at market prices unless prices are not known, in which case they are valued at cost less depreciation (a fairly common circumstance).

Current Year Value: Preliminary current year values are available in August, and final values should be available by mid-November, except in years of major revaluation efforts.

Values are available from the Central Assessment Bureau, once the individual county abstracts have been forwarded.

Next Year's Values: For most purposes, it is desirable to forecast residential property values apart from other properties. For residential properties, new values are basically attributable to new construction, so BBER residential construction data is helpful. However, these values may require deflation adjustments since "current" value is defined as two years prior to the tax year (i.e., 1986 market values are used for tax year 1988). Time trend analysis can be used, but care must be taken to correct for the impact of reappraisal programs carried on during recent years. Contact the Property Tax Division for information on current reappraisal programs. Commercial valuations generally change very slowly and can be forecasted on the basis of time trends, though BBER construction data may also be used. However, these figures contain construction contracts for public buildings, which must be excluded.

3. Oil and Gas Production Equipment Ad Valorem Taxes.

Types of Property: This tax is designed to serve in lieu of a tax on the value of oil and gas lease equipment; it does not cover drilling rigs, which are valued by Central Assessment.

Current Year's Value: The property tax valuation for taxes due in November is 9% of the prior calendar year sales value. Preliminary values are forwarded by Revenue Processing Division in March, but the preliminary values often understate the prior year sales value. It is more accurate to compute the valuation from later, regular, calendar year statistical reports. Note that these later reports provide sales by county, but do not contain municipal or school district information. Allocation of valuations to school districts

within each county is generally done on a proportional basis using the March district information and the later county valuation totals.

Next Year's Value: The value for next year (which will be 9% of the current calendar year sales value) should be computed on a basis which is consistent with the oil and gas school tax forecast. In order to make a consistent forecast, the oil and gas school tax forecast has to be broken down into quarterly estimates of volume and average price, so that the pieces can be reassembled on a calendar year basis. Since no forecast is available (or feasible) on a school district basis, a statewide forecast is generally allocated to school districts on a proportional basis using prior year allocated values.

4. Oil and Gas Ad Valorem Production Tax

Type of Property: This tax is designed to serve in lieu of a tax on oil and gas reserves. The taxable value is 50% of the sales value after deductions for federal, state and Indian royalties. The tax is due at the same time that the oil and gas school tax is due, so the tax base for the fiscal year is exactly half the tax base for the oil and gas school tax. (Note that the reserves value for hard mineral is based upon production--not sales--and these amounts are included in the mine valuations set by the Central Assessment Bureau).

Current Year's Value: An estimate is available from the analyst responsible for the oil and gas school tax. Allocated to school districts in proportion to most recent actual information, generally the current year equipment tax allocation proportion.

Next Year's Value. Estimates are available from the analyst responsible for the oil and gas school tax. Allocation to school districts is accomplished using the same methodology as above.

FORECAST OF ASSESSED PROPERTY VALUES

Generally, it is desirable to illustrate the impact of a measure using a current tax year scenario. Use (1) preliminary or final January 1 values for central and locally assessed properties; plus (2) 50% of the oil and gas school tax taxable value for the current year (oil and gas ad valorem production tax); plus (3) 9% of the total sales values for oil and gas for the previous calendar year (or/and gas ad valorem production equipment tax). Selecting the proper dates is an ongoing source of confusion. Here is an example:

A pre-session request for current year impact of an extra one mill levy is received in November, 1987. The proper values to be used are:

1) January 1, 1987 values for central and local properties;
2) April, 1986 - March, 1987 taxable values for school tax purposes of oil and gas sales, divided in half (these are actually the prior fiscal year values -- alternatively, estimate of the current year production values could be used, i.e., April, 1987 - March, 1988); and
3) 9% of total oil and gas school tax sales for calendar year 1986.

The same request received during the legislative session, e.g. in February, 1988, would use the same data. All dates are shifted forward one year to estimate the impact for the next fiscal year.

The forecast analysis proceeds as follows. First, estimate centrally assessed values for the following January by extrapolation:

Property Type	Value in Millions of Dollars						
	1982	1983	1984	1985	1986	1987	Est. 1988
Railroads(1)	40.6	31.0	42.1	46.2	50.1	59.5	65.5
Tel. and Tel.(2)	305.8	352.3	361.9	362.8	329.7	350.8	350.0
Pipelines(3)	257.3	278.4	270.4	332.9	375.1	365.2	365.0
Public Utilities(4)	672.0	914.4	911.8	1,113.8	1,139.9	1,194.6	1,220.0
Gas Utilities	45.1	45.7	46.3	62.6	65.0	66.7	68.0
Contractors' Equip.	19.6	24.8	24.4	22.1	22.3	19.7	20.0
Producing Mines (5)	610.9	604.8	560.2	617.0	605.7	521.8	500.0
Non Prod Mines	.2	.2	.3	.3	.3	.3	0.3
Airlines	8.2	10.7	13.8	28.1	30.8	31.4	32.5
Microwave(6)	.9	1.0	2.7	2.6	5.6	7.4	8.5
Drilling Equip(7)	10.8	10.7	10.7	11.1	10.2	7.2	8.0
Sand & Gravel	5.2	5.9	6.0	7.0	7.9	9.5	11.0
Total	1,976.6	2,279.9	2,250.6	2,606.5	2,642.6	2,634.0	2,648.8

Notes:
(1) Earlier drop (1982/83) resulted from federal legislation, the impact of which has now been absorbed. No known additions to property.
(2) Decrease in 1986 due to revised rules for telecommunications properties.
(3) Pipelines should show slower growth with fewer additions to mileage than in past years.
(4) Earlier large increases were due to Plains Generating station and installation of pollution abatement equipment. No special projects foreseen so "normal" increase assumed.
(5) Decrease associated with drop in uranium production, potash, gold, and molybdenum closings, and generally lower prices.
6) Microwave expansion in 1986 and 1987, associated with telecommunications firms, is expected to slow.
7) Decrease in 1987 associated with oil and gas price declines in early 1986, and the substantial decrease in exploration activity which followed.

Next, for locally assessed properties a qualitative effort is made to tie increases to recent construction activity, and to separate valuation maintenance (reappraisal):

Tax Year	Total Local	Change	F.W.Dodge Construction Res.	F.W.Dodge Construction Non Res.	Year	Adjusted to value year[1] Res.	Adjusted to value year[1] Non Res.	Notes
1977	$2,396.9	159.5	111.4	57.9	1976	-		
1978	2,603.5	206.6	165.4	77.2	1977	-		
1979	2,900.8	297.3	159.8	72.8	1978	-		Substantial reappraisal
1980	3,367.5	466.7	170.5	106.4	1979	-		$100 million reappraisal
1981	3,716.4	348.9	138.8	129.2	1980	-		1975 values mandatory
1982	4,105.3	388.9	123.6	135.5	1981	68.0	135.5	Large reappraisal[2]
1983	4,345.3	240.0	137.5	163.0	1982	72.9	163.0	Some reappraisal[2]
1984	4,664.6	319.3	209.5	226.7	1983	102.0	226.7	Some reappraisal[2] est. $78 in govt' bldgs.
1985	4,937.5	272.9	247.8	226.8	1984	124.0	226.8	Little reappraisal govt. bldgs. not included
1986	8,769.1	3,831.6	277.0	181.9	1985	232.7	181.9	Residential reappraisal[3] (from 1975 to 1980 levels)
1987	8,818.4	49.3	233.4	157.7	1986	189.1	157.7	No reappraisal[4]
1988	est. 10,376.0	1,557.6	199.5	--	1987	157.6	--	Residential reappraisal[5] (from 1980 to 1986 levels)
1989	est. 10,654.9	278.9	299.9	--	1988	278.9	--	

(1) Value of reported contracts awarded has been divided by 3, and deflated to appropriate value year -- 1975 for tax years through 1985, 1980 for tax years 1986 and 1987, 1986 for tax year 1988.

(2) Only residential reappraisal reported.

(3) Residential revaluation from 1975 to 1980 levels estimated at 3,417.0 : (3,831.6 - 232.7 - 181.9) = 3,417.0 Revaluation included substantial update of nonresidential values as well as residential

(4) No reappraisal activity: +49.3 change = +233.5 - 184.2. Locally assessed nonresidential property declined by $184.2 million. Residential new value increases of 233.5 implies that either assessors are not accurately "backcasting" to 1980 levels for new property, or that the lag time between construction contract data and taxable status is greater than one year. Note that 1985 construction deflated to 1980 prices is $232.7 million, and that 1986 residential contracts were $233.4 million before deflation to 1980 prices.

(5) Residential reappraisal from 1980 to 1986 ("current") levels roughly estimated at 25%, or $1,400 million, plus $157.6 million of new value. Nonresidential changes have not been estimated -- assume constant.

(5) Continued

Residential contracts estimated by BBER:

1985	1986	1987	1988
830.85 / 3 = 277.0	700.26 / 3 = 233.4	598.43 / 3 = 199.5	899.69 / 3 = 299.9

Implicit Price deflators for GNP: non-farm residential structures (1982=100).

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988**
Deflators	90.4	97.0	100.0	102.2	106.3	108.2	111.8	115*	120*
1980 as % of Deflation	1.00	.93	.90	.88	.85	.84	.81	.79	.93

* Estimate
** 1986 as % of Deflation

Next, the forecast for oil and gas production values reflects the same information as the oil and gas school tax estimate (fiscal year -- May through April production):

	1985 (1985-86)	1986 (1986-87)	1987 (1987-88)	1988 (1988-89)
Oil:				
price	$ 25.14	$ 14.16	$ 17.50	$ 17.50
volume	78.9	73.1	69.0	65.0
Total Value (millions)	$1,983.5	$1,035.1	$1,207.5	$1,137.5
Taxable (.90)	1,785.2	931.6	1,086.8	1,023.8
÷ 2	892.6	465.8	543.4	511.9
Gas:				
price	$ 2.53	$ 1.65	$ 1.65	$ 1.65
volume	803.9	665.0	820.0	760.0
Value	$2,033.9	$1,097.3	$1,353.0	$1,254.0
Taxable Value (.90)	1,830.5	987.5	1,217.7	1,128.6
÷ 2	915.2	493.8	608.8	564.3
CO_2	25.7	27.4	30.8	30.8
Total (millions)	1,833.5	987.0	1,183.0	1,107.0

(1) Actual 1985 total was $1,940.9 due to speedup of oil and gas reporting -- 13 months in fiscal year.

Finally, oil and gas equipment value is known for 1987 tax year (fiscal year 1987-88), and estimating the 1988 value (FY 1988-89) is simply a matter of adding estimated sales amounts for the last few months of calendar year 1987 to the known values for the earlier months:

1985 Value = (.09) (CY 1984 Sales) = (.09) (4,734.6) = 426.1
1986 Value = (.09) (CY 1985 Sales) = (.09) (4,511.5) = 406.0
1987 Value = (.09) (CY 1986 Sales) = (.09) (2,477.8) = 223.0
1988 Value = (.09) (CY 1987 Est.) = (.09) (2,637.0) = 237.3

Where CY Estimate 1987 of 2,637.0 is composed of $1,917.0 actual value through September and an estimated $720.0 in the final quarter of calendar 1987.

Summary of Net Taxable Values ($million)

		Actual 1985 (1985-86)	Actual 1986 (1986-87)	Actual 1987 (1987-88)	Estimated 1988 (1988-89)
Residential:	Local	2,887.8	5,370.1	5,603.6	7,161.2
	Central	6.0	5.4	6.3	6.5
	Total	2,893.8	5,375.5	5,609.9	7,167.7
Nonresidential:	Local	2,049.7	3,399.0	3,214.8	3,215.0
	Central	2,662.2	2,642.6	2,634.0	2,648.8
	Total	4,711.9	6,041.6	5,848.8	5,863.8
Oil and Gas Production		1,801.2(1)	987.0	1,183.0(2)	1,107.0(2)
Oil and Gas Equipment		426.1	406.0	223.0	237.3
All Property Total		**9,833.0(1)**	**12,808.1**	**12,864.6**	**14,375.8**

(1) Actual 1985 Oil and Gas Production was $1,940.9 due to speedup of oil and gas reporting --13 months in fiscal year. Total for all property in 1985 was actually $9,972.7 million.

(2) 1987 and 1988 Oil and Gas Production Value shown are based upon January, 1988 estimate for fiscal years 1987-88 and 1988-89 oil and gas school tax.

REVENUE AND FISCAL IMPACT ESTIMATES FOR PROPERTY TAXES

Since the state imposes no operating levy against the property tax base, property taxes represent an essentially local revenue source. Property taxes are not projected in the same sense as other revenues and the Taxation and Revenue Department does not generate detailed local government tax estimates. The Tax Research Office does, however, gather property tax data for use in fiscal impact analyses. Property-tax data sources include: 1) past annual reports of the Property Tax Division, 2) mid-August preliminary valuations provided by the Central Assessment Bureau, 3) late November final valuations (also supplied by Central Assessment), 4) ad valorem equipment valuations (provided in March for the prior calendar year) and production tax valuations (provided monthly) both available from the Revenue Processing Division, 5) levy sheets provided by the Local Government Division of the Department of Finance and Administration, 6) construction data from the University of New Mexico's Bureau of Business and Economic Research (BBER), and 7) Central Assessment Bureau Staff.

In previous years, Tax Research Office analyses focused primarily upon forecasting the property tax base (see previous discussion in this section). Current Tax Research Office efforts are directed toward developing and maintaining a general spreadsheet model which 1) describes the current year property tax base and revenues by property category and tax district, and 2) may be modified to address probably impacts of various property tax related proposals by the State Legislature. Modifications to the spreadsheet vary with specific proposals, but are generally presented as "illustrations" of the proposed legislation as applied to the current year tax data. Such "illustrations" are distinctly different from other fiscal impact estimate analysis, since current data is used rather than an estimated future tax base.

Property Tax Spreadsheet Model

Description

The property tax spreadsheet is a roughly 40 column by 350 row matrix which may easily be modified to simulate varying conditions. The model's leftmost column lists assessment districts (public school districts) within each of New Mexico's 33 counties. Counties appear in alphabetic order, while districts are arranged in ascending numerical order within county regions.

Section 1 of the spreadsheet contains county valuation figures provided to the Tax Research Office by Central Assessment and the Revenue Processing Division's Oil and Gas Accounting System. Valuations are grouped into various categories (e.g. residential, nonresidential, and Oil and Gas Production and Equipment) and summed in various ways. Livestock values are not incorporated in the spreadsheet. The second section (Exemption Estimates) contains estimates of head-of-family and veteran's exemptions in terms of probable claimant numbers which result from actual exemption amounts reported. Their primary significance stems from their effect of reducing the property tax base.

The spreadsheet's third section consists of district tax rates from "levy sheets" provided by the Local Government Division of the Department of Finance and Administration. The rates are grouped in terms of residential and non-residential, as well as debt-service rates and total rates on oil and gas. Horizontal summation provides total rates affecting any particular tax district or county. Some tax levy rates are not included in the spreadsheet such as those affecting livestock, or those which are applicable to special districts which do not necessarily align with school district boundaries (i.e., conservancy districts). The spreadsheet's fourth section generates an approximation of annual property tax revenues

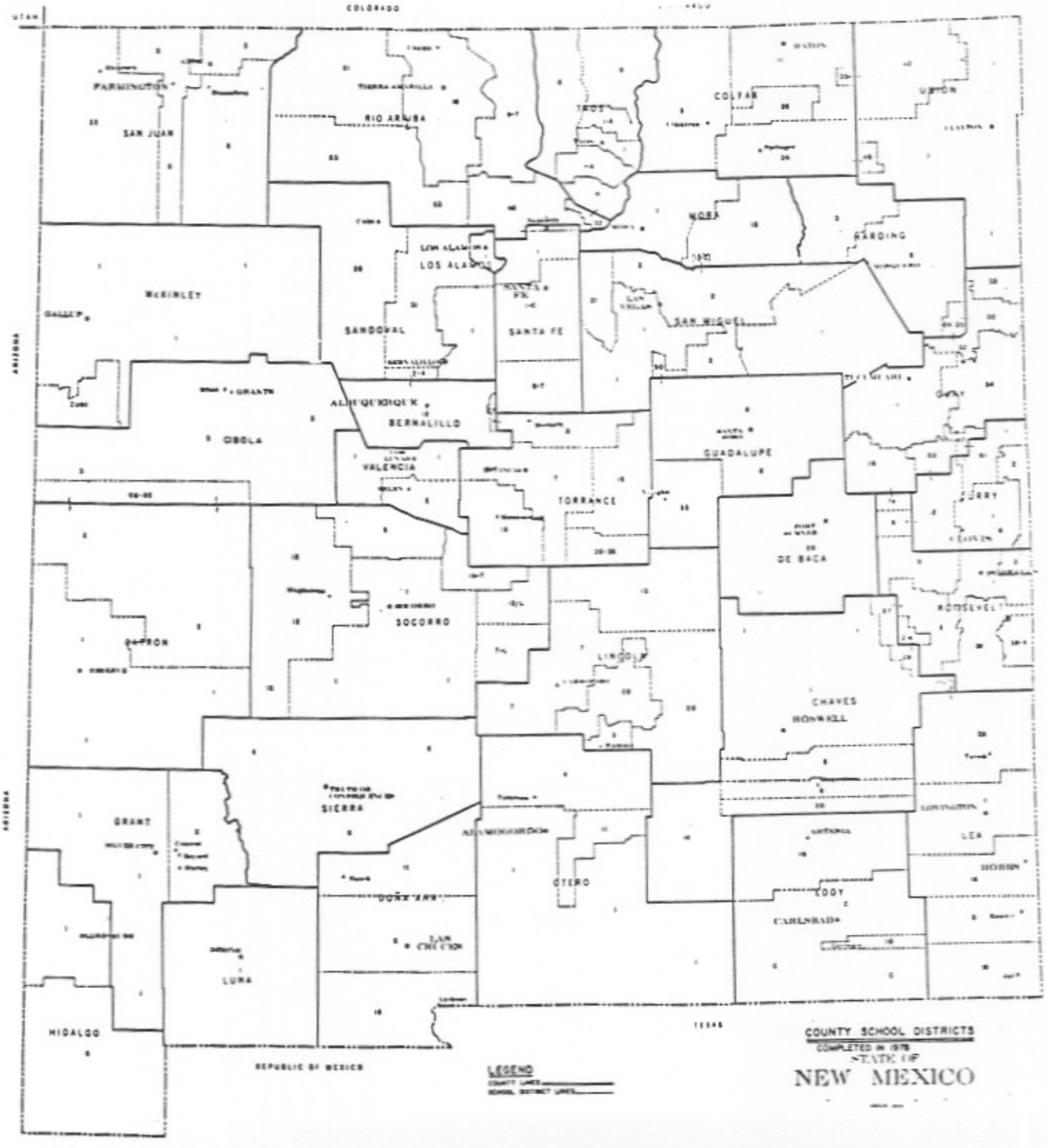
(at 100% collection) by multiplying rates and base amounts from the model's earlier sections.

Spreadsheet Parameters and Uses

Description

When complete, the spreadsheet generates state, county, and school district distributions of tax rates, valuations, exemptions and total revenues. A look down certain rows in the table, for example, indicates locations of the state's major mineral production (centrally assessed nonresidential) or major oil-and-gas production. The model's final row (state totals) also contains a considerable amount of useful information. Statewide valuations and revenue estimate totals, for example, make it possible to estimate weighted-average property tax rates for the various property categories. Knowledge of total state valuations and exemption amounts also facilitate estimation of property tax base changes likely to result from various legislative proposals.

The property tax spreadsheet thus represents an extremely useful analytical tool because it assembles substantial quantities of property tax data in a single location, providing great flexibility in isolating and performing calculations upon currently available property tax data. For illustrative purposes, portions of the property tax year 1987 spreadsheet and a school district map are reproduced on the following five pages.


COLORADO
UTAH
ARIZONA
SAN JUAN
FARMINGTON
RIO ARRIBA
TAOS
COLFAX
UNION
MORA
HARDING
MCKINLEY
GALLUP
LOS ALAMOS
SANDOVAL
SANTA FE
SAN MIGUEL
CIBOLA
GRANTS
ALBUQUERQUE
BERNALILLO
VALENCIA
GUADALUPE
TORRANCE
QUAY
DE BACA
ROOSEVELT
SOCORRO
CATRON
LINCOLN
CHAVES
ROSWELL
SIERRA
GRANT
ALAMOGORDO
OTERO
LEA
HOBBS
EDDY
CARLSBAD
DONA ANA
LAS CRUCES
LUNA
HIDALGO
TEXAS
REPUBLIC OF MEXICO
LEGEND
COUNTY LINES
SCHOOL DISTRICT LINES
COUNTY SCHOOL DISTRICTS
COMPLETED IN 1978
STATE OF
NEW MEXICO

SECTION 1

	Assessment District		(1) LOCALLY ASSESSED RESIDENTIAL	(2) LOCALLY ASSESSED NON-RESIDENTIAL	(3) CENTRALLY ASSESSED RESIDENTIAL	(4) CENTRALLY ASSESSED NON-RESIDENTIAL	(5) TOTAL LOCALLY ASSESSED	(6) TOTAL CENTRALLY ASSESSED	(7) NET TAXABLE NON-OIL & GAS RESIDENTIAL	(8) NET TAXABLE NON-OIL & GAS NON-RESIDENTIAL	(9) TOTAL NET TAXABLE NON-OIL & GAS	(10) OIL and GAS PRODUCTION	(11) OIL and GAS EQUIPMENT	(12) TOTAL NET TAXABLE
0	---- BERNALILLO ----													
1	12-IN	albq.	1,858,265,574	965,236,930	0	209,064,339	2,823,502,504	0	1,858,265,574	1,174,301,269	3,032,566,843	0	0	3,032,566,843
2	12-LR-IN	los ranchos	30,764,233	4,256,719	0	405,466	35,020,952	405,466	30,764,233	4,662,185	35,426,418	0	0	35,426,418
3	12-T-IN	tijeras	1,715,333	622,295	0	61,638	2,337,628	61,638	1,715,333	683,933	2,399,266	0	0	2,399,266
4	12-OUT	(X-12)	338,077,643	190,495,613	0	75,252,627	528,573,256	75,252,627	338,077,643	265,748,240	603,825,883	0	0	603,825,883
5	2A-C-IN	(2-A-IN) corrales	4,050,332	803,169	0	50,417	4,853,501	50,417	4,050,332	853,586	4,903,918	0	0	4,903,918
6	8-T	(X-08)	1,574,601	1,380,939	0	72,846	2,955,540	72,846	1,574,601	1,455,785	3,028,386	0	0	3,028,386
7	24-OUT	(X-24)	2,904,316	4,073,175	0	183,361	6,977,491	183,361	2,904,316	4,256,536	7,160,852	0	0	7,160,852
8	COUNTY TOTAL		2,237,352,032	1,166,868,840	0	285,090,694	3,404,220,872	76,026,355	2,237,352,032	1,451,959,534	3,689,311,566	0	0	3,689,311,566
9	---- CATRON ----													
10	1-IN	reserve	913,961	306,895	0	633,655	1,220,856	633,655	913,961	940,550	1,854,511	0	0	1,854,511
11	1-OUT		4,010,366	4,353,688	0	15,764,249	8,364,054	15,764,249	4,010,366	20,117,937	24,128,303	0	0	24,128,303
12	2		2,189,347	5,897,920	0	7,895,563	8,087,267	7,895,563	2,189,347	13,793,483	15,982,830	0	0	15,982,830
13	COUNTY TOTAL		7,113,674	10,558,503	0	24,293,467	17,672,177	24,293,467	7,113,674	34,851,970	41,965,644	0	0	41,965,644
14	---- CHAVES ----													
15	1-IN	roswell	141,404,116	69,758,041	0	16,555,748	211,162,157	16,555,748	141,404,116	86,313,789	227,717,905	0	0	227,717,905
16	1-OUT		20,642,071	17,287,511	20,800	41,101,139	37,929,582	41,121,939	20,642,871	58,388,650	79,031,521	41,042,977	7,628,533	127,723,031
17	1-L		19,644	20,790	0	0	40,434	0	19,644	20,790	40,434	0	0	40,434
18	6-IN	hagerman	1,804,848	439,018	0	333,580	2,243,866	333,580	1,804,848	772,598	2,577,446	0	0	2,577,446
19	6-OUT		1,003,363	2,189,485	0	1,137,406	3,192,848	1,137,406	1,003,363	3,326,891	4,330,254	1,273,665	236,732	5,840,651
20	8-IN	dexter	2,290,782	451,403	0	323,899	2,742,185	323,899	2,290,782	775,302	3,066,084	0	0	3,066,084
21	8-OUT		2,625,345	3,732,649	0	1,673,654	6,357,994	1,673,654	2,625,345	5,406,303	8,031,648	1,272,812	236,574	9,541,034
22	20-IN	lake arthur	536,422	50,705	0	55,969	587,127	55,969	536,422	106,674	643,096	0	0	643,096
23	20-OUT		441,928	1,281,317	0	1,362,602	1,723,245	1,362,602	441,928	2,643,919	3,085,847	5,717,627	1,062,718	9,866,193
24	14		555,006	2,173,606	0	319,528	2,728,612	319,528	555,006	2,493,134	3,048,140	0	0	3,048,140
25	27/28		99,617	470,060	0	435,560	569,677	435,560	99,617	905,620	1,005,237	366,747	105,339	1,477,323
26	COUNTY TOTAL		171,423,142	97,854,585	20,800	63,299,085	269,277,727	63,319,885	171,443,942	161,153,670	332,597,612	49,873,828	9,269,897	391,741,336

ETC.

STATE TOTAL	5,603,582,514	3,218,793,069	6,273,330	2,633,875,268	8,818,375,583	2,431,084,259	5,609,855,844	5,848,668,337	11,458,524,181	1,183,050,000	219,889,903	12,861,464,084

SECTION 2

Assessment District	(15) HEAD-of-FAMILY EXEMPTION	(16) WAR VETERAN EXEMPTION	(17) EST.NBR. FAMILY EXEMPTS	(18) EST.NBR. VETERAN EXEMPTS
---- BERNALILLO ----				
12-IN albq.	10,923,000	44,598,284	54,615	22,299
12-LR-IN los ranchos	103,000	345,775	515	173
12-.-IN tijeras	23,400	45,497	117	23
12-OUT (1-12)	2,507,000	8,808,611	12,535	4,404
2A-C-IN (2-A-IN) corrales	14,000	70,000	74	35
8-T (I-08)	9,200	53,500	46	27
24-OUT (I-24)	10,600	52,625	53	26
C O U N T Y T O T A L	13,591,000	53,974,294	67,955	26,987
---- CATRON ----				
1-IN reserve	22,000	32,081	110	16
1-OUT	64,200	121,026	321	61
2	36,224	79,839	181	40
C O U N T Y T O T A L	122,424	232,946	612	116
---- CHAVES ----				
1-IN roswell	1,472,405	4,429,306	7,362	2,215
1-OUT	221,423	493,088	1,107	247
1-L	200	0	1	0
a-IN hagerman	25,200	57,844	176	29
a-OUT	12,347	44,577	62	22
B-IN dexter	25,400	44,698	177	22
B-OUT	29,574	85,967	148	43
20-IN lake arthur	12,800	15,593	64	8
20-OUT	3,767	16,187	19	8
14	7,200	10,000	36	5
27/28	1,800	8,000	9	4
C O U N T Y T O T A L	1,832,136	5,205,252	9,161	2,603

ETC.

S T A T E T O T A L	41,005,257	131,950,897	205,027	65,975

SECTION 3

Assessment District		RESIDENTIAL							NON-RESIDENTIAL							DEBT LEVIES				TOTAL LEVIES		
		COUNTY	CITY	SCHL(1)	SCHL(2)	EDUC.	HOSP.	OTHER	COUNTY	CITY	SCHL(1)	SCHL(2)	EDUC.	HOSP.	OTHER	STATE	COUNTY	CITY	SCHOOL	RES	NON-RES	OIL/GAS
---- BERNALILLO ----																						
12-IN	albq.	4.958	1.300	0.284	3.930	1.982	4.088	0.402	6.879	1.839	0.393	5.067	2.747	4.838	0.495	1.150	2.900	12.000	1.210	34.204	39.518	
12-LR-IN	los ran	4.958	0.000	0.284	3.930	1.982	4.088	0.402	6.879	0.000	0.393	5.067	2.747	4.838	0.495	1.150	2.900		1.210	20.904	25.679	
12-T-IN	tijeras	4.958	1.651	0.284	3.930	1.982	4.088	0.402	6.879	1.228	0.393	5.067	2.747	4.838	0.495	1.150	2.900		1.210	22.555	26.907	
12-OUT	(X-12)	4.958		0.284	3.930	1.982	4.088	0.402	6.879	0.000	0.393	5.067	2.747	4.838	0.495	1.150	2.900		1.210	20.904	25.679	
2A-C-IN	(2-A-IN) co	4.958	5.046	0.284	3.930	1.982	4.088	0.402	6.879	5.327	0.393	5.067	2.747	4.838	0.495	1.150	2.900		1.210	25.950	31.006	
8-1	(1-08)	4.958		0.298	1.192		4.088	0.402	6.879		0.298	1.191		4.838	0.495	1.150	2.900		8.536	23.524	26.287	
24-OUT	(X-24)	4.958		0.298	1.192		4.088	0.402	6.879		0.298	1.191		4.838	0.495	1.150	2.900		8.536	23.524	26.287	
COUNTY TOTAL																						
---- CATRON ----																						
1-IN	reserve	7.531	1.881	0.422					8.344	1.881	0.389					1.150				10.984	11.764	
1-OUT		7.531		0.422					8.344		0.389					1.150				9.103	9.883	
2		7.531		0.433	1.730				8.344		0.500	2.000				1.150			8.258	19.102	20.252	
COUNTY TOTAL																						
---- CHAVES ----																						
1-IN	roswell	4.903	1.244	0.277		2.979			7.494	1.427	0.413		2.979			1.150	1.100	1.437	4.787	17.877	20.787	
1-OUT		4.903		0.277		2.979		0.500	7.494		0.413		2.979		0.500	1.150	1.100		4.787	15.694	18.423	20.116
1-L		4.903		2.143		2.387			7.494		0.500	2.000	4.834			1.150	1.100			11.683	17.078	
6-IN	hagerma	4.903	1.211	0.298	1.189	2.979			7.494	2.207	0.500	2.000	2.979			1.150	1.100		22.619	35.449	40.049	
6-OUT		4.903		0.298	1.189	2.979		0.500	7.494		0.500	2.000	2.979		0.500	1.150	1.100		22.619	34.738	38.342	34.948
8-IN	dexter	4.903	1.087	0.244	0.973	2.979			7.494	1.738	0.486	1.944	2.979			1.150	1.100		7.654	20.090	24.545	
8-OUT		4.903		0.244	0.973	2.979		0.500	7.494		0.486	1.944	2.979		0.500	1.150	1.100		7.654	19.503	23.307	24.983
20-IN	lake ar	4.903	1.064	0.310	1.237	2.979			7.494	2.225	0.500	2.000	2.979			1.150	1.100		16.383	29.126	33.831	
20-OUT		4.903		0.310	1.237	2.979			7.494		0.500	2.000	2.979			1.150	1.100		16.383	28.062	31.606	32.952
14		4.903		0.452	1.810				7.494		0.500	2.000				1.150	1.100			9.415	12.244	
27/28		4.903		0.279	2.000				7.494		0.473	2.000				1.150	1.100		12.351	21.783	24.568	25.951
COUNTY TOTAL																						

ETC.

STATE TOTAL . . . . . .

weighted average levies:	24.460	25.910	20.661
minimum levy:	7.625	9.883	11.150
maximum levy:	45.290	47.433	34.948

1) SCHL(1) levies include the .5 mill operating levy only.
2) SCHL(2) levies include capital improvement (2 mill), and Public School Buildings Act (Laws 1983, Ch. 163) levies.
3) OTHER LEVIES -- EDUC. includes all applicable community college and/or vocational school operation and debt.
4) CERTAIN OTHER LEVIES HAVE BEEN EXCLUDED -- those applying to livestock, and specific types or locations of property, for example: flood control districts, conservancy districts, irrigation districts, road maintenance, sanitation districts, levies upon livestock, etc.

SECTION 4

Assessment District		COMPUTED REVENUE (at 100% Collection) RESIDENTIAL	NONRESIDENTIAL	OIL & GAS	TOTAL
---- BERNALILLO ----					
12-IN	albq.	63,560,116	46,406,038	0	109,966,153
12-LR-IN	los ranchos	643,096	119,720	0	762,816
12-T-IN	tijeras	38,689	18,403	0	57,092
12-OUT	(I-12)	7,067,175	6,824,149	0	13,891,324
2A-C-IN	(2-A-IN) corrales	105,106	26,466	0	131,572
8-T	(I-08)	37,041	38,216	0	75,257
24-OUT	(I-24)	68,321	111,892	0	180,213
COUNTY TOTAL		0	0	0	0
---- CATRON ----					
1-IN	reserve	10,039	11,065	0	21,104
1-OUT		36,506	198,826	0	235,332
2		41,821	279,346	0	321,167
COUNTY TOTAL		0	0	0	0
---- CHAVES ----					
1-IN	roswell	2,527,881	1,794,205	0	4,322,086
1-OUT		324,324	1,075,694	979,076	2,379,095
1-L		230	355	0	585
6-IN	hagerman	63,980	30,942	0	94,922
6-OUT		34,855	127,560	52,785	215,200
8-IN	dexter	46,022	19,030	0	65,052
8-OUT		51,202	126,005	37,709	214,916
20-IN	lake arthur	15,624	3,609	0	19,233
20-OUT		12,401	83,564	223,426	319,391
14		5,225	30,526	0	35,751
27/28		2,170	22,249	17,441	41,861
COUNTY TOTAL		0	0	0	0

ETC.

STATE TOTAL		137,071,724.	150,003,084	28,984,397	316,061,207

11. MOTOR VEHICLE EXCISE TAX

Laws 1987, Chapter 264 increased the motor vehicle excise tax from 2.75% to 3%, effective July 1, 1987. The law also changed the distribution of this tax from:

	Applicable Percentage Rate
73% to State Road Fund	(2.0075)
27% to Local Gov't Road Fund	(0.7425)

to:

1/3 to State General Fund	(1.0000)
5/12 to State Road Fund	(1.250)
1/4 to Local Gov't Road Fund	(0.750)

Thus, beginning in the 76th fiscal year, some of the responsibility for monitoring and estimating this tax has passed from the State Highway and Transportation Department to TRS/TRD and DFA/EAU.

This revenue and other road fund revenues are currently being forecast by the New Mexico State Highway and Transportation Department, Advance Planning Section. For the 1987-88 year zero growth in base of the motor vehicle excise tax is assumed. For 1988-89 through 1993-94 the revenues are assumed to grow by approximately 2% per year.

A decomposition analysis of the historical data (from 7/82 to 6/87) indicates strong seasonality, a predictive linear trend (R^2 = .4), and a smooth cycle with index .96 in 7/82, 1.09 in August, 1984 and .96 in June, 1987. This cyclic pattern nominally tracks the movement in national sales of automobiles and accessories over the time period. Further work on this correlation will be done.

Motor Vehicle Excise Tax Projections
($Thousands)

	1986-87 75th FY (Actuals)	1987-88 76th FY (Est)	1988-89 77th FY (Est)	1989-90 78th FY (Est)	1990-91 79th FY (Est)
State Road Fund	30,695	19,614	20,006	20,366	20,835
Local Gov't Road Fund		11,767	12,003	12,219	12,500
State General Fund		15,688 (1)	16,000	16,290	16,665

1) A transfer of $564,650 from General Fund (Motor Vehicle Excise), to The State Road Fund was made in July, 1987. This was to "repay" the road fund for shortage due to license reinstatement fees that were erroneously retained in General Fund. The repayment was deemed incorrect. A reverse transfer of this amount is scheduled for January, 1988. This estimate is then $15.7 or $15.1 million depending on the timing of the repayment.

There is small seasonality. Approximate fiscal year seasonality factors to apply to projected annual receipts are as follows:

Q1	Q2	Q3	Q4
.257	.233	.235	.275

V. ESTIMATING REVENUES

This section describes the revenue estimating methodology for each of the General Fund revenue sources estimated by DFA, Economic Analysis Unit. For each tax and non-tax revenues, a description of the revenue source is provided, along with a discussion or listing of data sources. Next, the methodology for projecting revenues in the current and upcoming fiscal years is described and the computations are shown. Techniques for deriving quarterly breakdowns of the annual forecast are then discussed. Finally, a review of the preceding year's estimate is presented. In the case of revenues for which the data-gathering process is relatively involved, a summary of procedures is provided.

12. INTEREST EARNINGS ON THE STATE PERMANENT FUND

DESCRIPTION

The State Investment Council exercises investment jurisdiction over the State Permanent Fund. The fund revenues are derived from lands given by the United States to the Territory of New Mexico in accordance with the Ferguson Act of 1893, and from additional lands similarly granted by the Enabling Act of 1910 in anticipation of the conferring of statehood on the territory. The terms of these grants stipulate that such lands, as well as all funds derived therefrom, are to be held in trust for the benefit of the common schools and other designated institutions of the state. Article 13, Sections 1 and 2 of the New Mexico Constitution give custody and control of these granted trust lands to the Commissioner of Public Lands.

Essentially four types of income are derived from these lands. The largest category, royalties, is derived from mineral production on these state-owned lands. Royalty income goes to the corpus of the State Permanent Fund, credited to the account of the institution on whose land such production took place. In the 75th fiscal year, 1986-87, royalties were $95.6 million, of which $91.1 million came from oil and gas leases. The Common School share of royalty income was $74.8 million. Royalties for the 75th FY were $80.3 million below the prior year. The other three types of income derived from state lands are bonus income, rental income and other miscellaneous income. These income sources go to the to the Land Office Maintenance Fund and to the various beneficiaries, including the General Fund, directly.

The book value of the corpus of the Permanent Fund at the end of 75th fiscal year, 1986-87, was $2.581 billion. The Common School share of Permanent Fund balances on June 30,

1987 was $2.136 billion or 82.8 percent.

METHODOLOGY AND ESTIMATES

The Permanent Fund is invested almost exclusively in long term maturities. Less than three percent of fund assets will reach maturity in the current fiscal year. The average time to maturity or call of securities is 12.4 years. In addition, asset holdings are relatively stable because of restrictions on selling bonds at a loss and the income, rather than capital appreciation, orientation of the Fund.

The DFA and the Land Office provide the Investment Officer with estimated annual transfers of royalty revenue to the Permanent Fund. Royalty estimates depend on the state oil and gas price and volume assumptions and assumptions regarding the share of total production on State lands. Until recently about 50 percent of oil production was from State lands. For calendar 1986 the share declined to 43.8 percent. For Lea County, which produces two-thirds of New Mexico oil, 54 percent is from State lands. Lea County is in the State's most mature producing region and is experiencing greater production declines than other counties -- San Juan, Rio Arriba, and Eddy -- with much lesser shares of oil production from State land. Thus the decline in share of State-owned oil production may persist.

Projected Permanent Fund royalty transfers are $115 million and $99 million for the 76th and 77th FY, respectively. The 76th FY figure includes $10 million of compensation for state lands on the White Sands Missile Range.

The Permanent Fund interest earnings forecast is prepared by the Investment Office staff. A program accessing portfolio data maintained on the ISD computer generates an

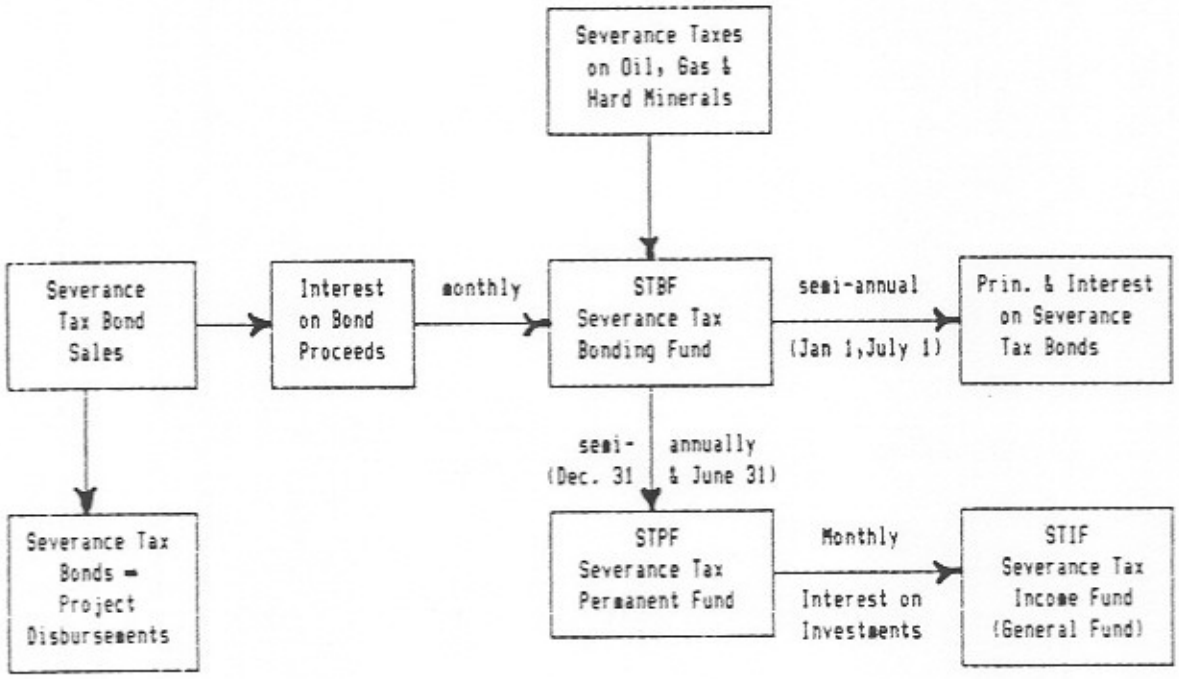
income projection that reports total income on current investments by fiscal year year and allows for reinvestment at rates around nine percent. The fund projection is adjusted to account for interest on royalty transfers, calls on high coupon bonds, and premium charges.

13. SEVERANCE TAX INCOME FUND

DESCRIPTION

The flow of funds between various state funds is chart diagramed below.

Flow of Funds
STBF - STPF - STIF



Severance taxes on oil, natural gas, coal and other minerals as well as interest on investments of severance tax bond proceeds are deposited, the month following receipt, into the Severance Tax Bonding Fund (STBF). On June 30 and December 31, the surplus balances in the STBF exceeding the next two semi-annual payments on Severance Tax Bonds, (due January 1 and July 1) are transferred to the Severance Tax Permanent Fund (STPF). STPF interest receipts are deposited in the Severance Tax Income Fund, which is part of the General Fund.

STPF balances on September 30, 1987 were $1.204 billion.

The STPF may acquire market rate or below market rate investments, (the latter being intended to stimulate the economy of New Mexico.) As of September 30, 1987, market rate investments - U.S. government securities and corporate notes -- constituted 44.7 percent of STPF balances, up from only 10 percent on September 30, 1985. Below market investments comprised 55.3 percent of STPF balances including New Mexico certificates of deposit (44.4 percent), New Mexico mortgage pass-through securities (45 percent) and SBA and BIA notes (2.6 percent). Short-term investments were 6.8 percent of assets.

METHODOLOGY

As with the Permanent Fund, total projected STPF income includes interest on current assets of the fund, interest from investment of principal returned and interest from investment of STBF transfers to the STPF. DFA staff estimate STBF transfers considering energy forecasts, projected STBF receipts and debt service schedules. The Investment Officer prepares an income projection reporting interests, payments due by fiscal year and assuming reinvestment at maturity. The income projection is adjusted to allow for interest on STBF transfers, prepayment on mortgage securities, premium charges, income from securities lending, and Investment Office budget.

ESTIMATES

Projected STBF transfers to the STPF for the 76th FY are $26.5 million on December 31, 1987 and $89 million on June 30, 1988. Projected 77th FY transfers are $13 million on December 31, 1988 and $84 million on June 30, 1989.

The 76th FY STPF income forecast of $109.1 million derived from the forecast of Investment Office staff.

Due to technical concerns regarding the ISD computer-generated forecast for the 77th fiscal year, DFA staff prepared a separate 77th FY forecast based on balances and yield by asset type (Table 1). Projected 77th fiscal year STPF income is $115 million.

Table 1
Projections of Severance Tax Permanent Fund Earnings
77th Fiscal Year

		88:3	88:4	89:1	89.2	77th Total
	Balance					
Bank CD's	Yield	0.085	0.084	0.083	0.082	.334
	Balance	235	235	235	235	235
	Interest	4.9937	4.9937	4.8762	4.8175	19.681
SBA	Yield	0.108	0.108	0.108	0.108	.432
	Balances	26	26	26	26	26
	Interest	0.702	0.702	0.702	0.702	2.808
STM12	Yield	0.1175	0.1175	0.1175	0.1175	.47
	Balances	41	41	41	41	41
	Interest	1.2043	1.2043	1.2043	1.2043	4.817
CD's-S&L's	Yield	0.1	0.099	0.098	0.097	.394
	Balances	299	299	299	299	299
	Interest	7.475	7.4002	7.3255	7.2507	29.453
BIA	Yield	0.087	0.087	0.087	0.087	.348
	Balances	5	5	5	5	20
	Interest	0.1087	0.1087	0.1087	0.1087	.435
NM Corps	Yield	0.086	0.086	0.086	0.086	.344
	Balances	40	40	40	40	40
	Interest	0.86	0.86	0.86	0.86	3.44
Direct	Yield	0.094	0.094	0.094	0.094	.376
	Balances	88.5	88.5	88.5	88.5	88.5
	Interest	2.0797	2.0797	2.0797	2.0797	8.319
Agency	Yield	0.091	0.091	0.091	0.091	.364
	Balances	34	34	34	34	34
	Interest	0.7735	0.7735	0.7735	0.7735	3.094
MGT BKD	Yield	0.097	0.097	0.097	0.097	.388
	Balances	189	189	189	189	189
	Interest	4.5832	4.5832	4.5832	4.5832	18.333
NMEA	Yield	0.07	0.07	0.07	0.07	.28
	Balances	20	20	20	20	20
	Interest	0.35	0.35	0.35	0.35	1.4
Corp Bonds	Yield	0.087	0.087	0.087	0.087	.348
	Balances	114	114	114	114	114
	Interest	2.4795	2.4795	2.4795	2.4795	9.918
Stocks	Yield	0.088	0.088	0.088	0.088	.352
	Balances	26	26	26	26	26
	Interest	0.572	0.572	0.572	0.572	2.288
Short & Other	Yield	0.065	0.065	0.065	0.065	.26
	Balances	50	50	50	50	50
	Interest	0.8125	0.8125	0.8125	0.8125	3.25
STBF Trsfr	Yield	0.075	0.075	0.075	0.075	.3
& Other	Balances	146.5	146.5	158.5	158.5	158.5
	Interest	2.7468	2.7468	2.9718	2.9718	11.437
Total	Balances	1314	1314	1326	1326	1326
	Interest	28.881	28.747	28.839	28.705	115.17

14. EARNINGS ON STATE BALANCES

DESCRIPTION

Revenues reported as earnings on state balances are derived from investment of the state's General Fund balances and associated accounts. These funds consist of monies in the Taxation Administration Suspense Fund (in transit from collection to disbursement), the Severance Tax Bonding Fund, monies appropriated to run state agencies, various reserve accounts, the state's unappropriated surplus, and monies in other accounts such as those appropriated in present and previous fiscal years for capital projects that have not yet been completed. These monies are invested by the State Treasurer in various short-term instruments within a general category called Treasurer's Funds.

The State Treasurer, at the direction of the State Board of Finance, invests these state monies in certificates of deposits (CDs) of banks and savings associations, United States government securities, and overnight repurchase agreements (repos).

Figure 1 shows estimated Treasury Fund investment balances by asset type for the period July, 1984 - June, 1987. The State Treasurer credits interest to self-earning accounts based on average daily balances for the month and the average yield on overnight investments. The Financial Control Division credits the residual of interest earned by the Treasury Fund to the General Fund. Figure 2 shows average monthly balances of self-earning accounts and estimated average General Fund balances for the period July, 1984 through June, 1987.

The two principal beneficiaries of self-earning accounts are the Road Fund and the Severance Tax Bonding Fund. The latter fund receives interest from investment of bond proceeds. Some of the principal components of General Fund balances are the Operating Reserve ($64 million), the State Support Reserve ($14 million) and the Severance Tax Bonding Fund ($30 - 120 million).

METHODOLOGY

There are four elements of the forecasting procedure for Treasury Fund earnings:

1) Estimate total average cash balances;
2) Determine distribution by asset type;
3) Estimate earnings by asset type; and
4) Compute the General Fund share of total interest earnings.

The DFA generally assumes that total cash balances and investments by asset type remain at about current levels, although investment plans are reviewed with the Deputy Treasurer. Estimated interest from U.S. Treasury securities is determined by examining yields and maturity dates of individual securities. On request, the State Treasurer produces a CD income projection report (monthly interest payments and principal returned). By assuming that CD's are rolled over on maturity, total CD income can be forecasted. Interest earned on overnight investments is estimated by applying the short term interest rate forecasts to projected overnight balances.

Interest on self-earning accounts is estimated by applying the Federal Funds rate to estimated quarterly balances.

The General Fund share of Treasury Fund interest is estimated as the residual of total Treasury Fund interest income.

ESTIMATES

The following table details the 76th and 77th fiscal year Treasury Fund estimates. Total projected balances for the 76th fiscal year are $662 million rising $20 million in the 77th FY to $682 million. Investments include $260 million in U.S. Treasuries at an average yield of 6.6 percent, $237 million of CD's, and the remainder in overnights.

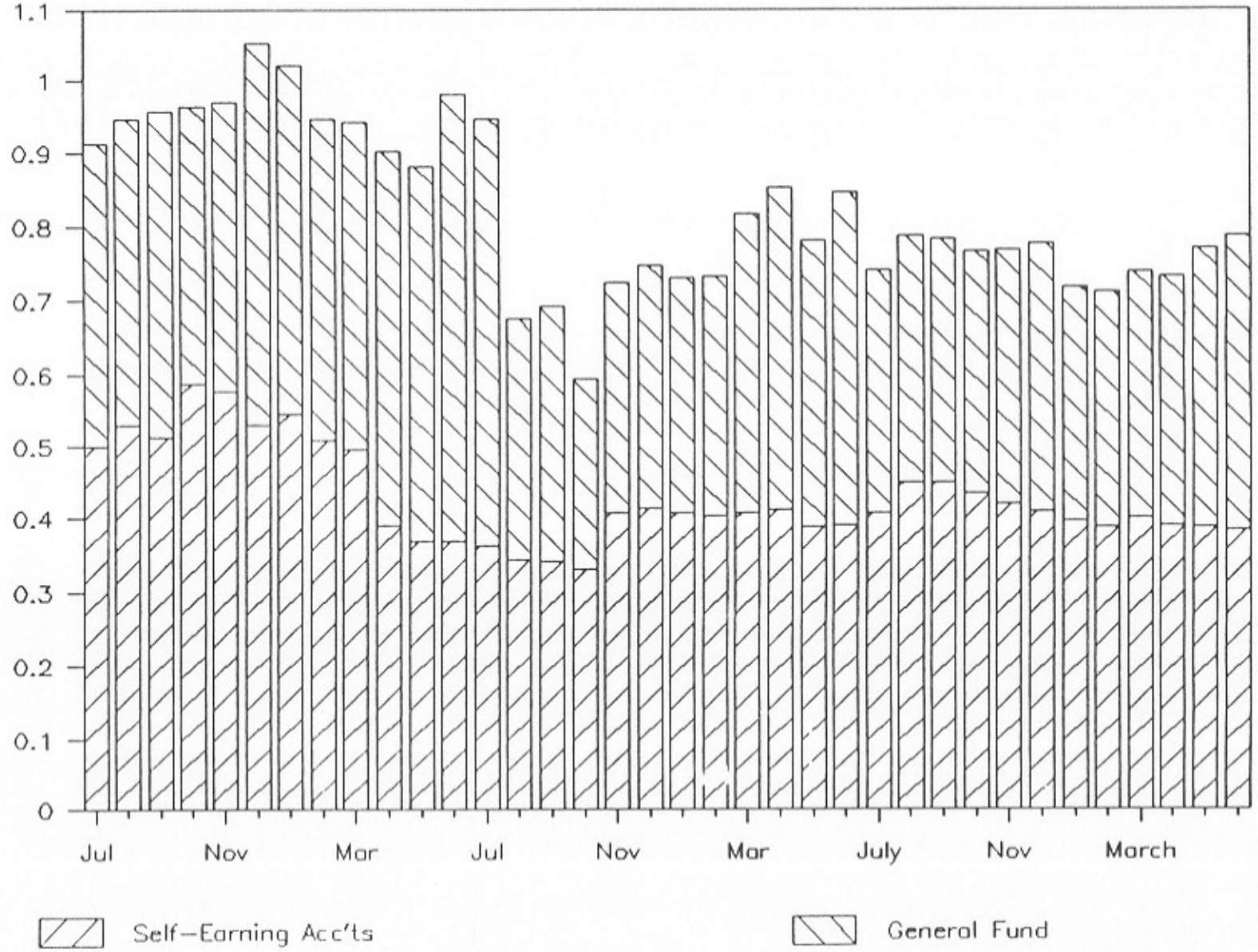
STATE OF NEW MEXICO
PROJECTION OF TREASURY FUND INTEREST EARNINGS BY INVESTMENT TYPE
FOR THE 76th and 77th FISCAL YEARS
($millions)

76th Fiscal year:	**87/3 (Actual)**	**87/4**	**88/1**	**88/2**	**FY TOTAL**	
INTEREST RATE FORECAST						
Federal Funds	6.8%	7.0%	6.5%	6.5%	-	
One year T-Bill	7.3%	7.5%	7.0%	7.0%	-	
INTEREST EARNINGS BY INVESTMENT TYPE						
Certificates of Deposit		3.8	3.7	3.9	11.4	(1)
Treasury Bills		5.9	2.7	5.9	14.5	(1)
Overnight & Term Repos		2.9	2.7	2.7	8.3	(1)
TOTAL INTEREST EARNINGS		12.6	9.0	12.5	34.1	
General Fund	3.0	7.0	3.4	6.8	20.2	
77th Fiscal Year Quarter:	**88/3**	**88/4**	**89/1**	**89/2**		
INTEREST RATE FORECAST						
Federal Funds	6.5	6.5	6.5	6.5		
One year T-Bills	7.0	7.0	7.0	7.0		
INTEREST EARNINGS BY INVESTMENT TYPE						
Certificates of Deposit	4.2	4.1	4.2	4.1	16.6	
Treasury Bills	2.7	6.3	2.6	6.3	17.8	
Overnight & Term Repos	3.0	3.3	3.3	3.3	13.0	
TOTAL INTEREST EARNINGS	9.8	13.7	10.1	13.7	47.4	
General Fund	4.1	8.0	4.4	8.0	24.6	

(1) FY total excludes first quarter actual.

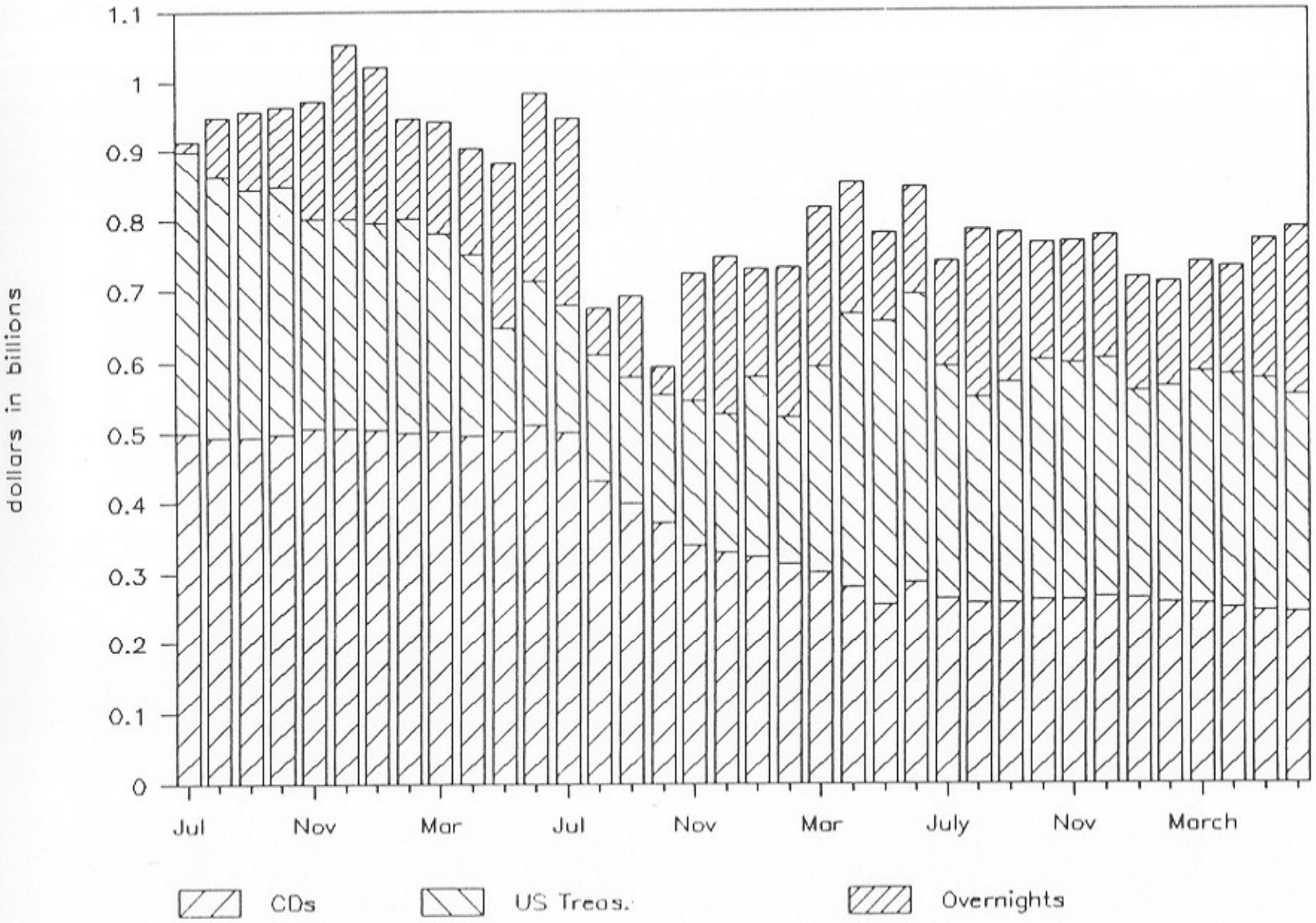
Treasury Fund: Balances by Beneficiary

July 1984 -- June 1987



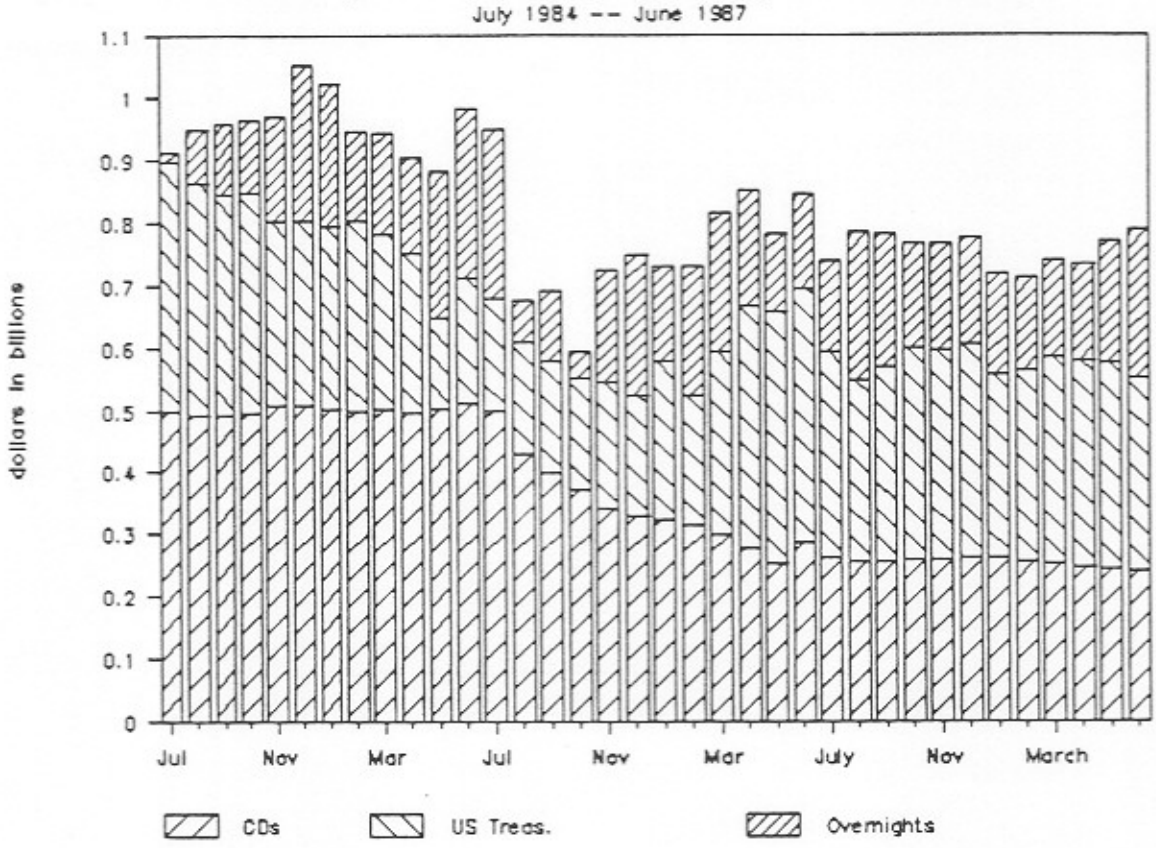
Treasury Fund: Avg Bals by Asset Type

July 1984 -- June 1987



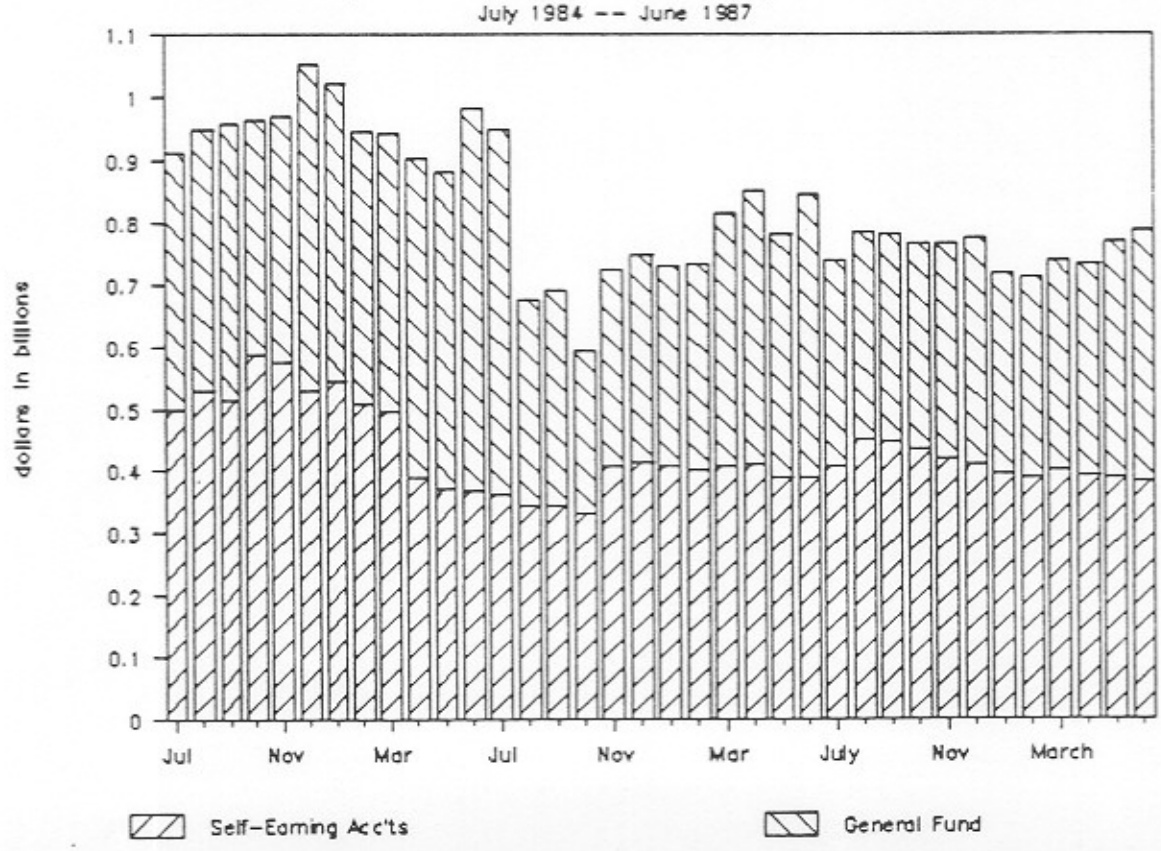
Treasury Fund: Avg Bals by Asset Type

July 1984 -- June 1987



Treasury Fund: Balances by Beneficiary

July 1984 -- June 1987



	JUN 1988	1.9	65.1	0.0700	2.0	3.87
77th	SEP 1988	1.1	60.3	0.0700	3.1	4.17
	DEC 1988	0.3	17.8	0.0700	3.9	4.14
	MAR 1989	0.1	5.0	0.0700	4.1	4.18
	JUN 1989	0.0	0.0	0.0700	4.1	4.14

OVERNIGHTS:

FISCAL YEAR	QUARTER ENDING	Average Balances	Overnight Yield	Income
76TH	SEP 1987		0.0681	0.0
	DEC 1987	165.0	0.0700	2.9
	MAR 1988	165.0	0.0650	2.7
	JUN 1988	165.0	0.0650	2.7
77th	SEP 1988	185.0	0.0650	3.0
	DEC 1988	205.0	0.0650	3.3
	MAR 1989	205.0	0.0650	3.3
	JUN 1989	205.0	0.0650	3.3

US TREASURIES:
As of 10/1/87

			ACTUAL INTEREST PAYTS BY QTR							
MAT DATE	PAR VALUE	COUPON RATE	88/3	88/4	89/1	89/2	87/3	87/4	88/1	88/2
5/30/96	55000000.0	0.130		3575000.0		3575000.0				
5/30/86	15000000.0	0.149		1115625.0		1115625.0				
6/30/87	10000000.0	0.085		425000.0		425000.0		425000.0		425000.0
3/15/90	40000000.0	0.099			1975000.0		1975000.0		1975000.0	
1/15/92	10000000.0	0.116	561250.0		581250.0		581250.0		581250.0	
4/15/92	40000000.0	0.118		2350000.0		2350000.0		2350000.0		2350000.0
11/15/12	3000000.0	0.104		155625.0		155625.0		155625.0		155625.0
Est. Interest										
Avg bals by qtr			260.0	240.0	240.0	240.0	0.0	260.0	260.0	260.0
Avg yield			0.066	0.067	0.067	0.067	0.070	0.066	0.066	0.066
Trading profits/reinvestment				0.4	0.4	0.4				
TOTAL			2.7	6.3	2.6	6.3	0.0	5.9	2.7	5.9

15. FEDERAL MINERAL LEASING

DESCRIPTION

Federal mineral leasing revenues consist of New Mexico's 50% share from royalties, rents and bonuses paid on federally-owned land within the state. With the implementation of the federal Oil and Gas Royalty Management Act of 1982, payment now occurs monthly.

The Minerals Management Service (MMS) provides the DFA with monthly reports of receipts. Part I of the MMS report presents bonuses and rentals; Part II presents oil and gas payments from El Paso Natural Gas Company; Part V presents all other royalty payments. Windfall profits tax payments on oil are estimated as the difference between 50 percent of gross federal receipts reported in Part V and actual payments to the States (although at current oil price levels, windfall profits taxes are nil).

ESTIMATES

The estimate of royalty revenue from oil and gas production follows the State price and volume assumptions. In addition, as with estimating Land Office royalty income, the analyst considers the share of oil and gas production on federal lands. For 1986, 59.4 percent of gas was produced on federal lands; the oil production share was 30.9 percent.

Estimates of non-oil and gas royalties and bonus and rental income are accomplished using trend analysis.

The table on the following page presents actual 75th fiscal year federal mineral leasing receipts and estimated 76th and 77th fiscal year revenues by source.

Federal Mineral Leasing Receipts by Source

($Million)

Fiscal Year:	75th (act.)	76th (est.)	77th (est.)
Rents	3.1	3.6	3.5
Bonuses	2.3	2.0	2.5
Oil	*	23.0	21.7
Gas	53.6	49.9	46.2
Coal	5.3	5.5	5.5
Potash	1.0	1.1	1.2
Gramm Rudman Restoration	3.5	0.0	0.0
Total	**68.8**	**85.1**	**80.6**

* Included in Gas; therefore not reported

16. STATE LAND OFFICE INCOME

DESCRIPTION

General Fund income from the State Land Office consists chiefly of bonus bids made for mineral leases on State-owned land. This is mostly related to oil and gas activity. Other Land Office receipts credited to the General Fund include rental payments on state-owned land, grazing rights, interest on cash deposits and other miscellaneous receipts. (Royalties on production from state land goes to the Permanent Fund.)

The distribution of monthly Land Office bonus and rental monies is as follows: 80% is distributed to state land beneficiaries of which the Common School Fund is the largest; and 20% is deposited in the Land Office Maintenance Fund to cover the budgeted expenses of the State Land Office for the forthcoming fiscal year. The June 30 balance in the Maintenance Fund in excess of the forthcoming fiscal year's budget reverts to the beneficiaries in October.

State Land Office income has been quite volatile, exceeding $100 million in the 70th FY but less than $20 million in recent years. Bonus bids, which account for most of the revenue, depend on such variables as the quality of the land offered in the monthly Land Office auction, the exploration budgets of oil and gas firms, and expected prices of oil and gas. Revenues increased dramatically during the period immediately following the national decontrol of the price of oil and the simultaneous period of worldwide price increases. Bonus bids declined sharply early this decade due to lower oil prices and the natural gas glut. The DFA estimates Common School income in cooperation with Land Office officials.

17. OTHER REVENUE SOURCES

INSURANCE FEES & TAXES, GENERAL FUND RECEIPTS FROM FIRE PROTECTION

Under Article 6 of the Insurance Code, insurance companies licensed in New Mexico are required to pay various fees and charges (59A-6-1, NMSA 1978) and a three percent tax on adjusted gross premiums and membership and policy fees written on New Mexico risks (59A-6-2). Companies that hold at least 40 percent of their total assets in statutorily defined New Mexico assets pay a 0.9 percent premium tax (59A-6-2). Payment of these fees, charges and premiums taxes is in lieu of all other taxes and fees. Thus, insurance companies are exempted from paying the Gross Receipts, Corporate Income and Franchise taxes (59A-6-6). Premiums attributable to insurance or contracts purchased by the state or political subdivisions are exempt from the premium tax (59A-6-2).

Currently, monies collected by the Insurance Department of the Corporation Commission are placed in the Insurance Distribution Account and then distributed either to the Insurance Department Suspense Fund or the Fire Protection Fund depending on the line of insurance. Taxes and fees, net of refunds, derived from property and vehicle insurance revenues are required to be transferred monthly to the Fire Protection Fund. Net collections from all other lines of insurance are transferred directly to the General Fund, less the Law Enforcement Fund diversion of 8 percent up to $2 million.

FIRE PROTECTION FUND RECEIPTS

Funds deposited in the Fire Protection Fund are used to finance authorized expenditures by the State Fire Marshal's Office. In addition, a July distribution to incorporated municipalities and independent fire districts is made from this fund.

General Fund receipts are the residual; the transfer from the Fire Protection Fund to the General Fund is made at the end of the fiscal year. Fire Protection Fund receipts for the current and next fiscal year are estimated by projecting Insurance Department collections from property and vehicle insurance fees and taxes. From this amount is subtracted the projected July distribution to local fire departments, the funding for the Fire Marshal's Office and any estimated pro-rata distributions. Carryovers from previous fiscal years are then added in. If necessary, the estimates are adjusted for expenditures for operation of the Fire Academy.

OTHER INSURANCE TAXES AND FEES

Projections of insurance taxes and fees have usually been made on the basis of historical trends and modified, as necessary, to take account of developments impacting the insurance business. Estimates of insurance taxes in recent years have been complicated by tax and fee changes and the shift to quarterly estimated payments. Compounding the difficulties have been sizeable carryovers and significant changes occurring in the industry. Examples of these changes are the move to self-insurance, the creation of the Public School Insurance Authority, and the tremendous growth of health maintenance organizations.

Estimates for the current and next fiscal year assume a growth in premiums of five percent. In prior years, a 12 percent growth rate was assumed; however, the assumed growth rate was adjusted downward to incorporate the factors noted above that contributed to a decline in insurance receipts for the 75th FY compared to the 74th FY.

Calculation of Insurance and Fire Protection Fund Receipts
($millions)

Insurance

75th Fiscal Year Collections		$27.3
Times:	growth factor	x 1.05
Equals:	Estimated 76th Fiscal Year collections	28.7
Less:	Law enforcement distribution	-2.4
Equals:	Adjusted 76th estimate	26.3
Plus:	Net carryover	+(0.1)
Equals:	Revenue estimate for 76th Fiscal Year	$26.2

Fire Protection Fund

75th Fiscal Year Collections:		$18.4
Times:	Growth Factor	x 1.05
Equals:	Estimated 76th FY Collections	19.3
Less:	Local distribution	-8.0
	Fire Marshall's budget	-1.0
	Volunteer Firefighters & pro-rata	-1.0
Equals:	Revenue estimate for 76th FY	$ 9.3

LICENSE FEES

License fees account for less than one percent of 76th fiscal year estimated revenues. Each category is estimated using time trend analysis. The results are tempered using information gained from conversations with industry, agency personnel, and current knowledge of the business sector. Statutory changes and diversion of receipts to new funds are considered during the estimating process. The transfer of the franchise tax to the Taxation and Revenue Department and the creation of the Regulation and Licensing Department Operating Fund, respectively are examples of statutory changes and fund diversions that impacted the 76th FY and 77th FY estimates.

MISCELLANEOUS RECEIPTS

The methodology for estimating miscellaneous receipts is similar to that used for estimating license fees. Miscellaneous receipts are estimated using trend analysis and the results are tempered using information gained from conversations with state agency personnel. As with license fees, statutory changes are a significant factor in estimating miscellaneous receipts.

REVERSIONS

Reversions are estimated by first reviewing the sources of reversions from prior years and then reviewing appropriation legislation, especially the general appropriations act, for contingent appropriations that may revert.

VI. LONG RANGE TAX ESTIMATES

PERSONAL INCOME TAX

The methodology for the estimation of personal income tax revenues for the 78th, 79th and 80th fiscal years is almost identical to that for the shorter range estimate. The risks to the forecast are as described in the personal income tax section, however, the elasticity of liability and withholding become paramount. Since the FOR-UNM forecast is for significant inflation these elasticity effects are critical.

From November, 1987 FOR-UNM

	1988 (est)	1989 (est)	1990 (est)	1991 (est)[1]
Total Personal Income[2]	18.314	19.382	20.758	22.356
Less Farm Property	.298	.296	.295	.295
Less Transfer Payments	3.033	3.258	3.490	3.776
Less N.M. Social Security Minus Res. Adjustment	.790	.832	.902	.969
	15.773	16.660	17.875	19.254
% Change from Previous Year		5.6%	7.3%	7.7%

(1) PCYA from October, 1987 long range FOR-UNM forecast used to project from 1990 figures from November post crash FOR-UNM forecast. Farm .4%; Personal Income 7.7%, Transfer 8.2%, Social Security 7.4%.

No further impact from tax reform is included as taxpayer behavioral changes in the choice of investment vehicles balance the final phased effects of passive loss and consumer interest limitations. Use 92% liability factor for all years. Long-run personal income tax estimation procedures are illustrated in the tables which follow.

Illustration: Long-Run New Mexico Personal Income Tax Revenue Estimation (Dollars in Millions)

Year (1)	Elasticity Factor (2)	x	Personal Income Growth Rate (3)	=	1 Plus Projected Growth in Liab. (4)	Projected Growth in Liab. (5)	x	Base Year Tax (6)	=	Projected Tax Liab. (7)	Liability Factor (8)	=	Final Fiscal Year Liab. (9)
1989	1.45	x	5.6%	=	8.1%	1.081	x	310.3	=	335.4	.92	=	308.6
1990	1.45	x	7.3%	=	10.6%	1.106	x	335.4	=	371.0	.92	=	341.3
1991	1.45	x	7.7%	=	11.2%	1.112	x	371.0	=	412.6	.92	=	379.5

Note: Column (3) consists of nonagricultural personal income adjusted for Social Security payments.

Illustration: Long-Run New Mexico Personal Income Tax
Revenue Estimation (Dollars in Millions)

FISCAL YEAR	78th (1989)	79th (1990)	80th (1991)
Fiscal Year Combined Liability*	308.6	341.3	379.5
Federal Tax Reform**	0.0	0.0	0.0
Less: Non-Refundable credits	1.4	1.4	1.4
Less: Refundable credits and rebates			
Food - total	51.7	49.6	48.4
Medical - total	13.3	13.6	14.1
LICTR - regular	9.2	8.9	8.6
LICTR - food and medical			
Property ***	3.0	3.1	3.2
Day Care	.3	.3	.3
Solar	0.0	0.0	0.0
Solar Irrigation	0.0	0.0	0.0
Total Rebates and Credits	77.5	75.5	74.6
Less: Claimed withholding	248.7	268.1	289.4
(88% of total)			
Plus: Prior Year Payments	2.0	0.0	2.0
Plus: Fiscal Year Withholding	289.8	312.8	335.8
Plus: Fiduciary	1.7	1.7	1.7
Plus: Change in PIT suspense	(2.0)	(1.0)	0
Equals: Net PIT to General Fund	272.5	309.8	353.6
Rounded	270	310	355

* Established liability plus unclaimed tentative payments
** No further impact of tax reform.
*** Reappraisal in 1988.

Withholding:

The linear regression model for short range revenues has been used here. The linear-linear model with an assumed multiplicative factor for the January, 1988 change in the tables probably has insufficient elasticity. However, a log-log model plausibly over predicts. The more conservative model has been chosen.

Calendar Year Withholding

1989 CY W/H	282,650	x	88% =	$248.7	million
1990 CY W/H	304,689	x	88% =	$268.1	million
1991 CY W/H	328,855	x	88% =	$289.4	million

Fiscal Year Withholding

1989-90 FY W/H	289,816
1990-91 FY W/H	312,794
1991-92 FY W/H	355,830

Rebates:

The food and medical rebates are scheduled to resume for the 1989 tax year. These rebates will be phased down by adjusted gross income and the 4% medical rebate will be limited to non-reimbursed expenses.

A model based on the 1986 data with assumed growth in AGI due to tax reform and growth in state personal income as determined for liability purposes yields the following:

	78th (1989)	79th (1990)	80th (1991)
Food Rebate	51.7	49.6	48.4
Medical Rebate	13.3	13.6	14.1

Gross Receipts and Compensating Tax

The preparation of the out year forecast for gross receipts taxes followed nearly the same procedure as the two-year forecast. In October, 1987, the FOR-UNM forecast service provided a long-term annual forecast through 1991. The calendar year private nonfarm wage and salary numbers were interpolated into fiscal year figures (and extended two quarters to complete the forecast period). The equation specified for the short-term forecast was modified to eliminate the quarterly dummy variables and solved with the annual average wage and salary figures for the out years. The resulting quarterly average taxable receipts estimates for each year were multiplied by four to obtain the annual total. An effective tax rate of .03344 was applied as in the short-range forecast, and the results were adjusted in accordance with the short-term forecast methodology. Compensating tax revenues were estimated by increasing annual collections at the same rate at which Gross Receipts tax base was forecast to increase.

Severance Taxes

Just as was the case with the short-term forecast for severance taxes, the long-term forecast was prepared on the basis of a qualitative analysis of the outlook for each major mineral. In fact, much of the analysis was performed in preparation for the prospectus for the mid-summer severance tax bond issue, i.e., the same oil volume and price forecast and the same coal and natural gas volume forecast was used to prepare the oil and gas

school tax the natural gas processors tax, the conservation tax and the resources excise tax estimates as had been used to prepare the severance tax forecasts in July. Additional assumptions were needed for coal prices (increased by 5% per year, more or less in line with inflation), for natural gas prices (increased more or less in line with industry consensus) and for copper volumes and values. Taxable values for uranium were also simply "lifted" from the earlier forecast. Once these variables were projected, derivation of tax collection estimates was simply a mechanical process of applying statutory rates to taxable sales.

GENERAL FUND
LONG TERM REVENUE ESTIMATES
(Millions of Dollars)

	78th FY 1989-90	79th FY 1990-91	80th FY 1991-92
Gross Receipts	600.0	645.0	685.0
Compensating	20.0	21.0	23.0
Subtotal	620.0	666.0	708.0
Selective Sales(1)	20.0	19.7	19.4
Personal Income Tax	270.0	310.0	355.0
Corporate Income Tax	64.3	86.6	86.7
Estate Tax	4.6	4.6	4.6
Subtotal Income Taxes	338.9	401.2	446.3
Oil and Gas School Tax	79.2	86.8	91.5
7% Conservation Tax	.4	.4	.4
Natural Gas Proc. Tax	6.5	7.6	8.4
Resources Excise Tax	7.9	7.7	7.9
Subtotal Severance Taxes	94.0	102.5	108.2
Motor Vehicle Excise	16.0	16.3	17.0
TOTAL	**1,089**	**1,206**	**1,299**

(1) Includes Cigarette, Liquor, Tobacco Products, and Private Car Taxes.

VII. OTHER CONSIDERATIONS IN THE REVENUE ESTIMATING PROBLEM

Taxes impose substantial impacts on regional and national economic forces which in turn affect tax collections. Public revenue forecasting is therefore made more difficult than would otherwise be the case by a number of general and secondary economic effects. Examples include changes in resource allocation resulting from attempts to avoid paying taxes, and income and employment impacts produced by tax legislation. Such effects are general in the sense that they apply to a broad range of taxes. Their secondary nature stems from 1) their origins in factors "indirectly" related to initial tax legislation (e.g., changes in income, interest rates, and consumption patterns) driven by changes in the tax structure, and 2) their tendency to require substantial time lags to become evident. General and secondary revenue effects were not analyzed in previous chapters because the focus was upon direct impacts of specific taxes. The present discussion briefly considers four types of general and secondary tax effects, namely: 1) income multiplier, 2) allocation, 3) income distribution and 4) growth and development impacts.

INCOME MULTIPLIER EFFECTS

Description of State and Federal Multiplier Differences

Tax forecasts require estimates of income, employment and other economic variables for the simple reason that public revenues depend upon such parameters. Major economic variables are, however, partially determined by taxes; hence causal relations between economic aggregates and public revenues are difficult to define. As an example of this type of interaction consider the chain of events following in the wake of a tax reduction. Money not "spent" on taxes is released to the private sector where it is spent multiple

times (i.e., the "multiplier effect") in passing from person to person. In the process, income, employment, consumption, and investment levels increase; tax revenues then expand with consumption and employment increases. The inevitable result is long-term tax reductions which are less than levels indicated by the initial tax cut. Income multiplier effects often take as long as several years to work through an economic system, and are in turn affected by other variables (e.g., international trade balances). Hence accurate long-term forecasts of tax changes are difficult to construct.[1]

Multiplier effects assume a somewhat different nature at the state than national level for several reasons. Unlike the federal government, states are generally prohibited from deficit spending. Political pressures typically prevent states from experiencing substantial revenue surpluses. Discretionary fiscal policy measures (i.e., deliberate budgetary imbalances designed to change in income and employment levels) are accordingly enacted at the federal, rather than state level. It is therefore unnecessary to analyze multiplier effects stemming from deliberate state budgetary imbalances.

State economies are much more "open" (dependent upon imports and exports from other political jurisdictions) than the national economic system. A favorable balance of "state trade" (an excess of state exports over state imports) may have extensive multiplier effects. Strong competitive pressures therefore exist among states to stimulate regional employment through various expenditure and tax measures.

Tax Research Office Multiplier Methodology

The short-run nature of Tax Research Office forecasts eliminates need for extensive multiplier estimates. Personal income taxes are, however, an explicit element of the

FOR-UNM model used in estimating New Mexico gross receipts, and the general level of state revenues is reflected in the FOR-UNM model's coefficients.

ALLOCATION EFFECTS: DESCRIPTION AND RELATED CONCEPTS

Description

Almost all taxes alter private-sector resource allocation. This issue is commonly discussed in public finance texts under headings of "excess burden" or "fiscal neutrality." The three terms (i.e., allocation effect, excess burden and fiscal neutrality) stem from the view that when taxes are withdrawn from the private sector two burdens are commonly imposed. The "normal burden" describes resources transferred from private sources, and is roughly equivalent to the absolute amount of revenues withdrawn. The "excess burden" component reflects consumption and production changes caused by the tax. Allocation effects usually manifest themselves in efforts to avoid paying taxes and in tax-induced responses to product price differentials. A completely "neutral" tax is thus one which imposes no excess burden and therefore does not alter resource allocation.

As an example of an allocation effect, consider the result of increasing excise tax rates on cigarettes. The tax increase causes cigarette price increases, and consumers tend to substitute other forms of recreation for cigarettes. Resources devoted to tobacco production decline, followed by variety of secondary effects such as decreased expenditures on lung cancer treatment expenditures. As the cigarette-tax example indicates, allocation effects may be positive or negative. Their outstanding characteristic, however, is that they alter private-sector decisions, which are, in turn, closely related to demand and supply elasticities.

Price Elasticity and Allocation Impacts

Elasticity is typically described in economics texts as the relative responsiveness of quantity demanded or supplied to a change in price. It is expressed in simple mathematical formulations as the percentage change in quantity demanded or supplied divided by a given percentage change in price. An elastic function is one wherein the percentage change in quantify demanded exceeds percentage change in price. An inelastic function is characterized by percentage changes in quantify demanded are less than corresponding percentage changes in price. In markets characterized by highly elastic demand functions, buyers resist price increases by substantially decreasing consumption. Elastic supply functions enable producers to place large quantities of goods on the market in the face of price increases, or vice versa. The essence of the concept is ability of market participants to make quantity adjustments to price changes. Elasticity considerations have a number of applications in tax policy analysis. Their significance with regard to allocation effects is that imposing consumption taxes in markets characterized by high elasticities tends to generate extreme allocation effects and affect tax revenues. Consumers and producers are highly responsive to tax-induced price changes under such conditions.

Almost all taxes impose some sort of allocation effects. Income taxes tend to cause substitution of leisure for work by changing the "price" of leisure relative to income; consumption taxes shift consumption from taxed to untaxed goods and services; property taxes tend to diminish consumption of real estate relative to other goods and services. Allocation effects are subject to intense scrutiny among tax analysts because they vary substantially among tax types. Allocation effects are also closely related to horizontal equity issues (i.e., equal treatment of people in similar positions), and hence are of great interest to policy makers.

ALLOCATION EFFECT METHODOLOGY

In reviewing legislative proposals, the Tax Research Office usually considers several types of allocation effect issues. These include: 1) proposals to substitute income tax revenues for other consumption-based taxes, 2) proposals to change tax deduction or exemption levels 3) proposals to change gross receipts or excise tax rates and 4) proposed revenue substitutes affecting gross receipts taxation. The later category includes measures which would: a) impose gross receipts taxes on currently untaxed goods or services, b) change the price of a good currently subject to gross receipts taxation, or c) introduce a new good or service which would be subject to the gross receipts tax.

Proposals to Substitute Income Taxes for Consumption-Based Taxes

For a given budget level, any measure which would replace consumption taxes with income-tax revenues is likely to have minor income multiplier effects. Income multiplier impacts of such a proposal may therefore safely be ignored. Differential allocation impacts of the income- and consumption-based taxes are of sufficient magnitude that they should be estimated, however.

As an example of the type of proposal outlined above, consider efforts to decrease income taxes and replace revenues lost with insurance-premiums tax increases. Such measures tend to increase insurance premiums and reduce consumption of insurance and related services. Although State revenues may remain largely unchanged, allocation impacts upon the insurance industry may be pronounced, depending upon the elasticity of demand for insurance services. Appropriate impact methodology therefore consists of 1) developing a rough estimate of insurance-service demand elasticity, and 2) forecasting revenues lost by New Mexico insurance providers.

Proposals to Alter Exemption or Deduction Levels

Changes in exemption or deduction levels are often proposed within the context of a number of taxes. New Mexico's property, income and gross receipts taxes are most commonly affected, however. Exemption and deduction change efforts are motivated by a variety of considerations, for example providing tax relief to a particular group of individuals. Sometimes changes in exemption or deduction levels are driven by strictly administrative considerations. An example of the latter is a situation wherein tax collection costs on a particular part of the tax base substantially exceed revenues which it generates.

Primary impacts of exemption and deduction changes consist of tax base and burden shifts. Exemption and deduction adjustments often produce minimal multiplier effects because they are offset by other rate changes within associated taxes or by tax base or rate increases affecting other taxes. Under such circumstances net tax revenue effects are essentially negligible. Tax Research Office analyses of exemption and deduction changes accordingly focus upon effects of burden shifts among various taxpaying entities.

As an example of exemption analysis, consider a proposal to increase New Mexico's property tax head-of-family exemption from the present $200 to $2,000. Tax Research Office investigations consist of estimating 1) the number of household affected and dollar amounts of revenues involved, 2) county property-tax rate increases which would result from the exemption increases, and 3) probable tax savings likely among various property classes. In this example, net property tax revenues are virtually unchanged. For other taxes this general principle my be approximately true, but the time scale may vary. An example of the latter category would be a proposal to replace a portion of New Mexico's severance taxes with increases in personal income tax rates.

Proposals to Change Gross Receipts or Excise Tax Rates

The Tax Research Office is often asked to estimate probable tax revenues generated by an increase in taxes which are similar in nature to traditional sales taxes (e.g., New Mexico gross receipts and excise taxes). Elasticity considerations play an important part in the resulting analysis. To demonstrate considerations involved, consider a proposal to increase excise taxes on cigarettes by ten percent. Under such circumstances, what portion of the tax will be reflected in cigarette price increases depends upon cigarette supply and demand elasticities. If it is assumed that the elasticity of supply of cigarettes is infinite (a fairly realistic assumption) then essentially all of the tax increase will appear as an increase in the price of cigarettes. Resulting effects upon total revenues from cigarette sales, hence cigarette tax revenues, then depend upon the price elasticity of demand for cigarettes.

If the demand for cigarettes is estimated as unity, tax revenues may be expected to remain constant in the face of a ten percent increase in cigarette taxes. Under such condition a ten percent decline in cigarette consumption would be counterbalanced by ten percent increase in producers' revenues, hence tax revenues. Suppose, however, that the price elasticity of demand for cigarettes is two. Then a ten percent increase on cigarette taxes may be expected to decrease cigarette excise revenues by twenty percent (i.e., two times the increase in tax revenues). For similar reasons, a ten percent increase in the tax rate may be expected to decrease tax revenues by five percent if the price elasticity of demand for cigarettes is expected to be .5.

The Tax Research Office seldom directly estimates demand elasticities for various products. A number of studies by various academic institutions and trade associations are

available, however, which provide rough estimates of demand elasticities for various goods and services. Such sources are utilized in estimates of the types described above.

Proposed Revenue Substitutes Affecting Gross-Receipts Taxation

Gross receipts revenue estimates generally assume fixed disposable personal income among New Mexico taxpayers. Hence gross receipts tax changes alter taxpayers' savings and spending decisions. Effects of resulting saving and expenditure changes generally depend upon a complex set of demand and supply elasticities.

It is difficult to generalize regarding revenue estimating methodology concerning gross receipts substitutes. Fiscal impact analyses, however typically attempt to: 1) estimate demand and supply elasticities among taxed and substitute industries, 2) forecast expenditure shifts between the two industries, 3) identify tax rates in the two product markets, and finally 4) estimate State revenue changes likely to occur from the proposed tax substitution.

Untaxed Good or Service: Taxing a currently untaxed good normally decreases consumption of the untaxed product while simultaneously increasing substitute good purchases. Prices tend to rise in previously untaxed industries and fall in the substitute-producing industries. Resource allocation tends to shift from the previously untaxed commodity industries to those supporting the substitute products. The extent of resource shifts depends upon demand and supply elasticities among the untaxed and taxed commodities. As a general rule, pronounced resource reallocation tends to occur when demand and supply elasticities in the substitute commodity markets substantially exceed those of the taxed product markets.

Price Changes Among Goods Currently Subject to Gross Receipts Tax: This type of proposal includes measures which change product prices in regulated industries. If, for example, the regulated price of natural gas is decreased, gross receipts revenues tend to diminish in the substitute commodities industries as consumption of substitutes declines. Resulting consumption shifts depend upon relative elasticities in the regulated and unregulated industries. Resulting aggregate changes in State tax revenues are determined by the consumption shifts and differences in tax rates between the regulated and unregulated industries.

Introduction of New Good Subject to Gross Receipts Taxes: When the State or private industry introduces an new good (e.g., a lottery ticket) all expenditures on the product are financed from reductions in savings and purchases of other products. If demand elasticities among substitute products are great, revenues generated by gross receipts revenues from the new commodity may be offset by reductions in gross receipts in the substitute product industries.

DISTRIBUTION EFFECTS

Almost all taxes redistribute income and wealth in some fashion. Related concepts include notions of progressivity and tax incidence.[2] Extensive literature exists regarding distributional impacts of most tax types. Tax incidence is, unfortunately, extremely difficult to measure, as is demonstrated by controversies surrounding corporate income and property tax incidence which have lasted for decades.

Long-run incidence estimation is not an ongoing part of the Taxation and Revenue Department's annual forecasting cycle. The Department does, however, occasionally

sponsor and conduct special tax incidence studies. Attempts are also made to roughly identify direct impacts on groups affected by various proposals as part of bill reviews. Identification methods vary with proposals. Resource limitations prevent substantial efforts to precisely measure distributional impacts of tax proposals, however.

GROWTH AND DEVELOPMENT EFFECTS

A fourth general consideration in making revenue estimates concerns effects of proposed tax changes upon labor force quality and participation, work effort, investment levels, attraction of industries from outside the state and similar variables. Such considerations are commonly termed growth and development effects. They are similar to income multiplier effects and obviously have profound impacts New Mexico's economic environment. They are long-run by nature, however, and thus beyond the Department's normal forecasting time horizon. The Taxation and Revenue Department therefore devotes little effort to analyzing economic growth and development impacts.

End Notes

[1]It has been argued that under some circumstances (i.e., upper ranges of the "Laffer Curve") multiplier effects are sufficient to offset tax cuts. Prerequisite conditions (extremely high tax levels and associated tendencies by workers to substitute leisure for income) are uncommon, however, hence tax cuts almost invariably produce long-run decreases in public revenues.

[2]Many types of tax incidence are described in public finance literature. The two most common types for purposes of the present discussion, however, are "direct" and "indirect" incidence. Direct incidence connotes individuals or entities responsible for initial tax payment (e.g., service stations which collect and pay excise taxes on gasoline). Indirect incidence, in contrast, describes entities paying the tax after various economic adjustments have been made. In the gasoline example, the tax may be borne by businesses in the form of decreased profits, or consumers in the form of increased prices.